

# Project Management eWorkbook Worksheets



**4<sup>th</sup> Edition**

## Copyright Information

Copyright© 2018 by Dean A. Baker

Baker, Dean A., 1945-

Project Management eWorkbook Worksheets 4<sup>th</sup> edition

All worksheets are extracted from the *Project Management eWorkbook: For Classroom and Live Online Group Study 4<sup>th</sup> Edition*, by Dean A. Baker, ISBN: 978-0-9985172-2-3

## Distributed by

Team Implementers, LLC  
38342 Humphrey Circle  
North Ridgeville, Ohio 44039

Web: [www.TeamImplementers.com](http://www.TeamImplementers.com)

This publication contains information from authentic and highly regarded resources. Sources are indicated. Reasonable effort has been made to publish accurate information, but the author does not assume responsibility for the validity of all materials or consequences of their use.

All Rights Reserved. No part of this publication may be reproduced, stored in retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, without the prior written permission of the author, Dean A. Baker.

Microsoft and PowerPoint are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

PMI, PMP, and PMBOK are registered trademarks of the Project Management Institute, Inc. PMI does not endorse or otherwise sponsor this publication.

Contact the author at [DABaker@TeamImplementers.com](mailto:DABaker@TeamImplementers.com)

# Table of Contents

<b>1.0 Project Overview Worksheets.</b>	<b>1</b>
1.1.1 Project Examples	2
1.1.2 Executive Involvement in Projects	3
1.1.3 Project Roles Crossword	4
1.1.4 Project Management Benefits	5
1.2.1 Process Groups and Knowledge Areas	6
1.3.1 Project Initiation Factors	7
1.3.2 Strategic Project.	8
1.4.1 Project Life Cycle	9
1.4.2 Tailoring the Life Cycle.	10
1.5.1 Preliminary Project Selection	11
1.5.2 Business Case Financials	12
1.5.3 Business Case Multicriteria Decisions	14
<b>2.0 Cooperate Worksheets.</b>	<b>15</b>
2.1.1 Personal History	16
2.1.2 Class Charter	17
2.2.1 EEF and OPA Identification	18
2.2.2 Organizational Structures	19
2.2.3 Project Structures	20
2.3.1 Single Line Organization Chart	21
2.3.2 RACI Matrix	22
2.3.3 Situational Matrix	23
2.3.4 Cooperation	24

<b>3.0 Communicate Worksheets.</b>	<b>25</b>
3.1.1 Communication Channels Solution	27
3.1.2 Brainstorm (See Affinity Diagram)	28
3.1.3 Affinity Diagram	28
3.2.1 Project Charter	29
3.2.2 Project Management Plan Components	30
3.2.1 Facilitation	32
3.3.2 Context Diagram.	33
3.3.3 Scope Statement	34
3.4.1 Meeting Agendas	35
3.4.2 Meeting Effectiveness..	36
3.4.3 Video Conference Calls	37
3.4.4 Meeting and Video Conference	38
3.4.5 Project Website.	39
3.5.1 Communication Conflict	40
3.5.2 Communication Elements/Examples	41
3.5.3 Social Media Communications	42
3.6.1 Request for Quote	43
3.6.2 Contract Type	44
3.6.3 Equipment Acquisition Process	45
<b>4.0 Coordinate Worksheets.</b>	<b>47</b>
4.1.1 Stakeholder Classification	49
4.1.2 Stakeholder Engagement Assessment	50
4.1.3 Action Planning	51

4.2.1 Create wagon WBS . . . . .	52
4.2.2 Kitchen Replacement WBS . . . . .	53
4.3.1 Network Diagramming. . . . .	54
4.3.2 PDM Networks . . . . .	55
4.3.3 Kitchen Replacement Network . . . . .	56
4.4.1 Duration Estimates . . . . .	57
4.4.2 Estimating Techniques . . . . .	58
4.4.3 Kitchen Replacement Timing . . . . .	59
4.4.4 Milestones . . . . .	61
4.5.1 Resource Smoothing/Leveling . . . . .	62
4.5.2 Kitchen Replacement Leveling . . . . .	63
4.6.1 Estimating Accuracy . . . . .	64
4.6.2 Kitchen Replacement Budget. . . . .	65
4.7.1 Team Assignments . . . . .	67
4.7.2 Staff Selection . . . . .	68
4.8.1 Team Formation . . . . .	69
4.8.2 Team Development Stages . . . . .	70
4.8.3 Team Characteristics and Barriers . . . . .	71
<b>5.0 Control Worksheets</b>	<b>73</b>
5.1.1 Project Control . . . . .	75
5.2.1 Forward and Reverse Pass . . . . .	76
5.2.2 Kitchen Replacement Critical Path . . . . .	77
5.2.3 Burndown Chart. . . . .	80
5.3.1 Crash Cost . . . . .	81

5.3.2 Schedule Recovery . . . . .	82
5.3.3 Schedule Improvement. . . . .	83
5.4.1 Earned Value Example. . . . .	84
5.4.2 Earned Value . . . . .	85
5.4.3 Forecasting Example . . . . .	89
5.4.4 Forecasting . . . . .	90
5.4.5 Performance Trends . . . . .	94
5.5.1 Change Control Process . . . . .	95
5.5.2 Change Control Implementation . . . . .	96
5.6.1 Quality Benefits . . . . .	100
5.6.2 Project Quality Metrics. . . . .	101
5.6.3 Project Deliverables Validation . . . . .	103
5.6.4 Project Quality Situations . . . . .	104
5.7.1 Conflict Reduction . . . . .	105
5.7.2 Personality Conflict . . . . .	106
5.7.3 Phase Scorecard . . . . .	107
5.8.1 Risk Identification and Assessment . . . . .	108
5.8.2 Risk Register . . . . .	109
5.8.3 Risk Management . . . . .	110
<b>6.0 Complete Worksheets. . . . .</b>	<b>111</b>
6.1.1 Leadership Situations . . . . .	112
6.1.2 Leadership Structures . . . . .	113
6.2.1 Decision Making . . . . .	114
6.3.1 Project Manager Role . . . . .	115













6.3.2 Character Traits . . . . .	116
6.3.3 Project Balance . . . . .	117
6.4.1 Checklists . . . . .	120
6.4.2 Visual Control Board. . . . .	121
<b>7.0 Close Worksheets . . . . .</b>	<b>123</b>
7.1.1 Project Closure . . . . .	124
7.1.2 Project to User Linkage . . . . .	125
7.1.3 Project Evaluation Form. . . . .	126
7.1.4 Future Opportunities . . . . .	127
7.2.1 Lessons Learned Integration . . . . .	128
7.3.1 Ethics Importance and Support . . . . .	129
7.3.2 Bribes . . . . .	130
7.3.3 Ethics . . . . .	131
7.4.1 PMP Application – Experience . . . . .	132
<b>9.0 Microsoft Project Basics Worksheets. . . . .</b>	<b>133</b>
9.1 Getting to Know MS Project . . . . .	134
9.2 Work Breakdown Structure in MS Project . . . . .	135
9.3 Networks in MS Project . . . . .	137
9.4 Durations in MS Project. . . . .	138
9.5 Resources in MS Project. . . . .	139
9.6 Leveling in MS Project. . . . .	140
9.7 Budgets in MS Project. . . . .	141
9.8 Critical Path in MS Project. . . . .	142

<b>10.0 Bakersfield Term Project Templates..</b>	.	.	.	<b>143</b>
Part I Project Charter	.	.	.	144
Part I Communication Plan	.	.	.	146
Part II Scope Statement	.	.	.	147
Part II Risk Register	.	.	.	148



# **1** Project Overview Worksheets

Chapter 1 consists of 12 exercises: 3 Roundtables, 1 Class, 7 Team, 1 Simulation

<u>TYPE</u>	<u>EXERCISE WORKSHEET</u>	<u>PAGE</u>
	1.1.1 Project Examples	2
	1.1.2 Executive Involvement in Projects	3
	1.1.3 Project Roles Crossword	4
	1.1.4 Project Management Benefits	5
	1.2.1 Process Groups and Knowledge Areas	6
	1.3.1 Project Initiation Factors	7
	1.3.2 Strategic Project	8
	1.4.1 Project Life Cycle	9
	1.4.2 Tailoring the Life Cycle	10
	1.5.1 Preliminary Project Selection	11
	1.5.2 Business Case Financials	13
	1.5.3 Business Case Multicriteria Decisions	14



### **1.1.1 Project Examples Worksheet**

- **Why do individuals, groups, companies, and governments perform projects?**

- **Project examples around the home**

- **Project examples in your personal life**

- **Project examples at work**



### **1.1.2 Executive Involvement in Projects**

■ How closely should an executive monitor a project?

■ What has been your experience with executives on your projects?

■ Does an executive need project management training?



1.1.3 Project Roles Crossword Puzzle Worksheet

The crossword puzzle grid consists of white squares for letters and black squares for empty space. The numbered starting points are:

- 1: Down, 1st column, 3rd row
- 2: Down, 1st column, 5th row
- 3: Down, 3rd column, 2nd row
- 4: Down, 4th column, 2nd row
- 5: Down, 5th column, 1st row
- 6: Across, 5th column, 3rd row
- 7: Down, 7th column, 3rd row
- 8: Down, 8th column, 2nd row
- 9: Down, 9th column, 3rd row
- 10: Across, 1st column, 4th row
- 11: Across, 1st column, 5th row
- 12: Down, 3rd column, 4th row
- 13: Across, 3rd column, 6th row
- 14: Across, 3rd column, 7th row
- 15: Down, 7th column, 4th row



### **1.1.4 Project Management Benefits Worksheet**

■ **Team 1 - Project Management Benefits to Project Participants.**

■ **Team 2 - Project Management Benefits to the Project**

■ **Team 3 - Project Management Benefits to Participating Companies**



### 1.2.1 Process Groups and Knowledge Areas Worksheets

#### **Process Groups and Knowledge Areas Worksheet**

Project Activity	Knowledge Area	Process Group
Perform Quality Checks		
Define Scope		
Check Actual to Baseline costs		
Identify Threats		
Create Project Website		
Sequence Activities		
Create Charter		
Lessons Learned Mtg.		
Identify Stakeholders		
Assemble Project Team		
Project Update Session		
Authorize Final Payment		



### **1.3.1 Project Initiation Factors Worksheet**

- **Team 1 - Market Demand, Social Need, & Environmental Considerations**

- **Team 2 - Business Need, Legal Requirements, & Economic Changes**

- **Team 3 - Technology Advance, Customer Request, and Material Issues**



### **1.3.2 Strategic Project Worksheet**

■ **Team 1 - GMI Strategic Criteria and Justification**

■ **Team 2 - HTMI Strategic Criteria and Justification**

■ **Team 3 - BCI Strategic Criteria and Justification**

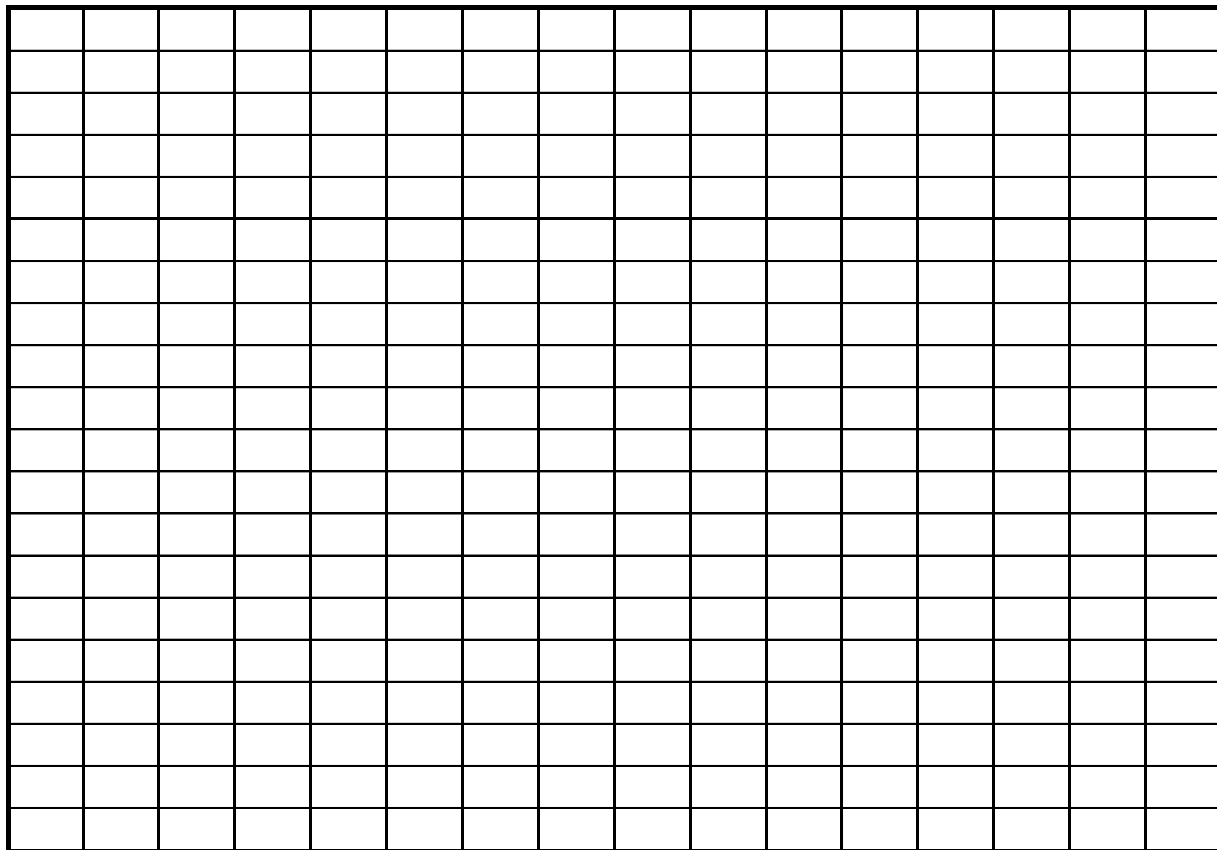




### 1.4.1 Project Life Cycle Worksheet

**Project Phases**

#### Bar Graph of Project Phases





**1.4.2 Tailoring the Life Cycle Worksheet**

<b>Step 1</b>	<b>Step 2</b>	<b>Step 3</b>	<b>Step 4</b>
<b>Project Phases</b>	<b>Activity Type Unique/On Going</b>	<b>Consolidate or Out of Scope</b>	<b>Final Team Structure</b>



### **1.5.1 Preliminary Project Selection Worksheet**

- **Compare the Bakersfield New Tech Equipment and New Plant proposals. List the advantages of the New Tech Equipment proposal:**

- **Compare the Bakersfield New Tech Equipment and New Plant proposals. List the advantages of the New Plant proposal:**

- **Based on the preceding discussion regarding the advantages of the two proposals which option would you choose based on the current information?**



### 1.5.2 Business Case Financials Worksheet

<b>Business Case Financials Worksheet (All \$ Values in Millions)</b>			
	<b>Team 1 Hi Tech Equipment</b>	<b>Team 2 New Plant California</b>	<b>Team 3 Consolidated Project</b>
Project Cost			
Project Duration Years			
Payback Years			
ROI @ Year 8			
NPV @ Year 8			
Note: GMI uses an 8% discounted cash flow in all their projects.			

#### NPV Calculation Tables

<b>Team 1 - Bakersfield New Tech Equip Project NPV Calculations</b>				
	Discount Rate 8%		NPV @ 8%	
Year (x)	Cash Flow	$1/(1+.08)^x$	Cash Flow	Cumm NPV
0	-19	1		
1	-39	0.9259		
2	6	0.8573		
3	6	0.7938		
4	6	0.7350		
5	6	0.6806		
6	6	0.6302		
7	6	0.5835		
8	6	0.5403		
9	6	0.5002		

<b>Team 2 - Bakersfield New Plant Project NPV Calculations</b>				
		Discount Rate 8%	NPV @ 8%	
Year	Cash Flow	$1/(1+.08)^x$	Cash Flow	Cumm NPV
0	-36	1		
1	-66	0.9259		
2	16	0.8573		
3	16	0.7938		
4	16	0.7350		
5	16	0.6806		
6	16	0.6302		
7	16	0.5835		
8	16	0.5403		
9	16	0.5002		

<b>Team 3 Bakersfield Consolidated New Tech Equip &amp; Plant Project NPV Calc.</b>				
		Discount Rate 8%	NPV @ 8%	
Year	Cash Flow	$1/(1+.08)^x$	Cash Flow	Cumm NPV
0	-36	1		
1	-60	0.9259		
2	19	0.8573		
3	19	0.7938		
4	19	0.7350		
5	19	0.6806		
6	19	0.6302		
7	19	0.5835		
8	19	0.5403		
9	19	0.5002		












**1.5.3 Business Case Multicriteria Decision Making Worksheet**

<b>Business Case Multicriteria Decision Making Worksheet</b>								
<b>Parameter</b>		<b>Score Weight</b>	<b>Team 1 Hi Tech Equipment</b>		<b>Team 2 New Plant California</b>		<b>Team 3 Consolidated Project</b>	
			<b>Score</b>	<b>Wgtd. Score</b>	<b>Score</b>	<b>Wgtd. Score</b>	<b>Score</b>	<b>Wgtd. Score</b>
<b>Strategic</b>	Increase Sales 50%							
	Leadership Midwest/Southeast							
	1st Place Northeast/ 2nd Western							
	Increase productivity 5%/year							
	Presence in Asia/Europe							
<b>Financial</b>	Payback							
	ROI @ Year 8							
	NPV @ 8 Years							
<b>Balance</b>	Available Funds							
	Available Manpower							
	Values and Culture							
	Risk Tolerance							
<b>TOTAL SCORE</b>								

# **2** Cooperate Worksheets

Chapter 2 consists of nine exercises: 2 Class, 2 Roundtable, and 5 Team

<u>TYPE</u>	<u>EXERCISE WORKSHEET</u>	<u>PAGE</u>
	2.1.1 Personal History	16
	2.1.2 Class Charter	17
	2.2.1 EEF and OPA Identification	18
	2.2.2 Organizational Structures	19
	2.2.3 Project Structures	20
	2.3.1: Single Line Organization Chart	21
	2.3.2: RACI Matrix	22
	2.3.3: Situational Matrix	23
	2.3.4: Cooperation	24



**2.1.1 Personal History Worksheets**

**Family**

**Education and Experience**

**Likes**

**Dislikes**





**2.1.2 Class Charter Worksheet**

**Structure**

**Inter-personal**

**Communications**

**Attitude**



2.2.1 EEF and OPA Factor Identification Worksheet

EEF and OPA Identification					
Team Assignment	Factors Impacting Projects	EEF		OPA	
		Internal	External	Knowledge Base	Policies, Processes, Procedures
Team 1	1. Political climate				
	2. Process audits				
	3. Time reporting				
	4. Publications				
	5. Equipment				
	6. Subcontractors				
	7. Prior project reports				
	8. Video conferencing				
	9. Metrics data				
	10. Working Conditions				
Team 2	11. Interest Rates				
	12. Communication requirements				
	13. Issue resolution data				
	14. Factory locations				
	15. Mission				
	16. Competitors				
	17. Report formats				
	18. Risk categories				
	19. Historical information				
	20. Weather				
Team 3	21. Accounting codes				
	22. Std. contract provisions				
	23. Change approval method				
	24. Lessons learned				
	25. Tariffs				
	26. Local laws				
	27. Human resource skills				
	28. Leadership style				
	29. Ethics				
	30. Standardized estimating data				



### 2.2.2 Organizational Structures Worksheet

<b>Team 1 - Functional Organization</b>	
<b><u>Advantages</u></b>	<b><u>Disadvantages</u></b>

<b>Team 2 - Project Organization</b>	
<b><u>Advantages</u></b>	<b><u>Disadvantages</u></b>

<b>Team 3 - Matrix Organization</b>	
<b><u>Advantages</u></b>	<b><u>Disadvantages</u></b>



### 2.2.3 Project Structure Worksheet

■ How is your company organized to handle projects?

■ Which structure best fits your organization?

■ What can a project manager do to be successful in each of these structures?



**2.3.1 Single Line Organization Chart Worksheet**

**Team 1 - GMI Single Line Org Chart**

**Team 2 - HTMI Single Line Org Chart**

**Team 3 - BCI Single Line Org Chart**



2.3.2 RACI Matrix Worksheet

PROJECT RACI CHART									
		Project Participants							
Assignment	Kitchen Project								
	ID	Task							
Team 1	1	Concept Design							
	2	Order Appliances							
	3	Layout Design							
	4	Order Cupboards							
	5	Electrical Design							
	6	Establish Contracts							
	7	Secure Permits							
Team 2	8	Deliver Materials Ordered							
	9	Remove Oven and burners							
	10	Remove sink							
	11	Remove cabinets, soffet, drywall							
	12	Rough Elec							
	13	Rough Plumbing							
	14	New drywall							
Team 3	15	Paint							
	16	Finish Electrical Outlets							
	17	install Cabinets							
	18	Install sink w/disposal							
	19	Install Microwave							
	20	Install Floor Tile							
	21	Paint							



**2.3.3 Situational Matrix Worksheet**

<b>SITUATIONAL MATRIX CHART</b>				
<b>PROJECT SITUATION</b>	<b>Assignment</b>			
	<b>Team 1</b>	<b>Team 2</b>	<b>Team 3</b>	<b>All Teams</b>
	<b>GMI</b>	<b>HTMI</b>	<b>BCI</b>	<b>TYPE</b>
Improve project management process				
Remedy escalated cost, delivery & performance variances				
Approve macro schedules				
Negotiate Purchase Order changes				
Approve detail schedule changes				
Remedy cost, delivery, & performance variances				
Resolve technical disputes				
Resolve operational issues				
Resolve mechanical engr. issues				
Resolve electrical engr. issues				
Manage the site preparation process				
Manage equipment Installation				
Manage the start-up process				
Manage the training process				
Manage the equipment ramp up				
Manage service support				
Manage spare parts				



### 2.3.4 Cooperation Worksheet

**How do team norms, personal history exercise, matrix charts and responsibility charts improve project team cooperation?**

**What other techniques have you experienced that improved cooperation within groups?**

**When in the project life cycle is the best time to implement these techniques? Explain your answer.**







# 3

# Communicate Worksheets

Chapter 3 consists of 19 exercises: 3 roundtable, 3 class and 10 team, 3 simulations

<u>TYPE</u>	<u>EXERCISE WORKSHEET</u>	<u>PAGE</u>
	3.1.1 Communication Channels	27
	3.1.2 Brainstorm (See Affinity Diagram)	28
	3.1.3 Affinity Diagram	28
	3.2.1 Project Charter	29
	3.2.2 Project Management Plan Components	30
	3.3.1 Facilitation	32
	3.3.2 Context Diagram	33
	3.3.3 Scope Statement	34
	3.4.1 Meeting Agendas	35
	3.4.2 Meeting Effectiveness	36
	3.4.3 Video Conference Call	37
	3.4.4 Meeting and Video Conference	38
	3.4.5 Project Website	39
	3.5.1 Communication Conflict	40
	3.5.2 Communication Elements/Examples	41

<b><u>TYPE</u></b>	<b><u>EXERCISE WORKSHEET</u></b>	<b><u>PAGE</u></b>
	3.5.3 Social Media Communications	42
	3.6.1 Request for Quote	43
	3.6.2 Contract Types	44
	3.6.3 Equipment Acquisition Process	45



### 3.1.1 Communication Channels Worksheet

**Team 1** - You manage a project team with seven other participants. How many communication channels exist in your team.? (Show calculations)

**Team 2** - You have assembled a leadership team made up of yourself, your sponsor, and the purchasing agent from your company along with three other companies that are each providing a project manager, sponsor, and sales representative. How many communication channels exist in the Leadership team? (Show calculations)

**Team 3** - The project steering committee has five members and you have created a design team with six engineers and an implementation team of eight technicians. How many communication channels among the steering committee, design team and implementation team? (Show calculations)



**3.1.3 Affinity Diagram Worksheet**

Group - \_\_\_\_\_

Group - \_\_\_\_\_

Group - \_\_\_\_\_

Group - \_\_\_\_\_

Group - \_\_\_\_\_

Group - \_\_\_\_\_



### 3.2.1 Project Charter Worksheet

**Project Name:** \_\_\_\_\_

---

**Mission**

(Purpose or  
Justification)

---

**Goals**

(Objectives)

---

**Scope**

(Project  
Description)

---

**Summary  
Milestone  
Schedule**

---

**Summary  
Budget**

---

**User Acceptance  
Criteria/Quality**

---

**Major  
Risks**

---



### 3.2.2 Project Management Plan Components Worksheet 1

**Team 1** – Describe project change management in the Bakersfield Project.

**Team 2** - Describe project configuration management in the Bakersfield Project.

**Team 3** - Describe the performance measurement baseline in the Bakersfield Project.



### 3.2.2 Project Management Plan Components Worksheet 2

Project Documents				
#	Document	Team 1	Team 2	Team 3
1	Activity Attributes			
2	Activity list			
3	Assumption Log			
4	Basis of Estimates			
5	Change Log			
6	Cost Estimates			
7	Cost Forecasts			
8	Duration Estimates			
9	Issue Log			
10	Lessons Learned Register			
11	Milestone list			
12	Physical resource Assignments			
13	Project Calendars			
14	Project Communications			
15	Project Schedule			
16	Project Schedule Network Diagram			
17	Project Scope Statement			
18	Project Team Assignments			
19	Quality Control Measurements			
20	Quality Metrics			
21	Quality Report			
22	Requirements Documentation			
23	Requirements Traceability Matrix			
24	Resource Breakdown Structure			
25	Resource Calendars			
26	Resource Requirements			
27	Risk Register			
28	Risk Report			
29	Schedule Data			
30	Schedule Forecasts			
31	Stakeholder Register			
32	Team Charter			
33	Test and Evaluation Documents			



### 3.3.1 Facilitation Worksheet

- **Joint Application Design (JAD) and Quality Function Deployment (QFD) are two facilitation techniques used in collecting requirements. Name other facilitation opportunities over the entire project.**

- **What experience have you had with facilitation meetings related to projects?**

- **Beyond the stated purpose of the facilitation meeting did the process strengthen relationships among the participants? Explain your answer.**





**3.3.2 Context Diagram Worksheet**

A large, empty rectangular box with a thin black border, intended for drawing a context diagram.



### 3.3.3 Scope Statement Worksheet

**Project Name:** \_\_\_\_\_

**Project Phase** \_\_\_\_\_

---

**Scope**  
(Project  
Description in  
more detail)

---

**Acceptance  
Criteria**  
(Greater Detail)

---

**Deliverables**  
(Includes  
Ancillary Items)

---

**Exclusions**  
(Items out of  
Scope)

---

**Constraints**  
(Schedule,  
Cost, and  
Others)

---



3.4.1 Meeting Agendas Worksheet

Meeting Type: \_\_\_\_\_

Meeting Location: \_\_\_\_\_

Team Identity: \_\_\_\_\_

Meeting Time: \_\_\_\_\_

Meeting Participants: \_\_\_\_\_

---



---



---

Subject

Presenter/Facilitator

\*\*\*\*\*

\*\*\*\*\*

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



**3.4.2 Meeting Effectiveness Worksheet Team \_\_\_\_**

Meeting Type: \_\_\_\_\_

Team Identity: \_\_\_\_\_

■ **Leader:** \_\_\_\_\_

Responsibilities: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Tasks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

■ **Recorder:** \_\_\_\_\_

Responsibilities: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Tasks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

■ **Participant:**

Responsibilities: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Tasks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



### 3.4.3 Video Conference Call Worksheet

- **Hardware & Skype or other call set up (Team 3)**

- **Pre-Call Planning (Team 1)**

- **Conduct & Manage Conference Call (Team 2)**

- **After Call Activities (Team 3)**



### 3.4.4 Meetings and Video Conference Worksheet

- **What value does the agenda add to a meeting?**

- **What experience have you had with meeting minutes that were never made or late? What was the result?**

- **What's your experience with video calls? What do you like? What do you dislike?**



### 3.4.5 Project Website Worksheet

■ All Teams - General Site Content

■ Team 1 - Leadership Content

■ Team 2 - Engineering Content

■ Team 3 - Construction Content

■ Team 4 - Start Up Content



### 3.5.1 Communication Conflict Worksheet

■ **Team 1 - What communication errors did Klaus make?**

■ **Team 2 - What should Diane do when she gets the call from Janet?**

■ **Team 3 - What more should James do regarding this call and Klaus attitude?**





### 3.5.2 Communication Elements/Examples Worksheet

■ **Team 1 - Project Verbal Communications**

■ **Team 2 - Project Written Communications**

■ **Team 3 - Communication Methods and Media**



### 3.5.3 Social Media Communications Worksheet

- How might Twitter, Facebook, or other social media facilitate Project Communications?

- Cite experiences in your work or professional life where communications failed?

- How might these communication failures have been avoided?



**3.6.1 Request for Quote (RFQ) Worksheet**

Team \_\_\_\_ Skilled Work being quoted: \_\_\_\_\_

■ **Owner Information and Instructions Provided with RFQ**

■ **Contractor Responsibilities**

■ **Contractor Deliverables**



### 3.6.2 Contract Type Worksheet

**Contract Type Abbreviations:**

FFP - Firm Fixed Price

FP-EPA – Firm Price Economic Price Adj.

CPIF – Cost Plus Incentive Fee

T&M - Time and Material Contracts

FPIF - Firm Price Incentive Fee

CPFF – Cost Plus Fixed Fee

CPAF – Cost Plus Award Fee

<u>Contract Type</u>	<u>Reasoning</u>
<b>■ Team 1 - Low Risk to GMI</b>	
GMI/BCI _____	_____
	_____
	_____
GMI/HTMI _____	_____
	_____
	_____
<b>■ Team 2 - Low Risk to BCI and HTMI</b>	
GMI/BCI _____	_____
	_____
	_____
GMI/HTMI _____	_____
	_____
	_____
<b>■ Team 3 - Best for Cooperation and Overall Success</b>	
GMI/BCI _____	_____
	_____
	_____
GMI/HTMI _____	_____
	_____
	_____



### 3.6.3 Equipment Acquisition Process (EAP) Worksheet

#### Equipment Acquisition Process Agenda

**Team:** \_\_\_\_\_ **Meeting Type:** \_\_\_\_\_

**Meeting Purpose:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**GMI Participants:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### Meeting Agenda















**Time:** \_\_\_\_\_ **& Location** \_\_\_\_\_







<b>Topic</b>	<b>Presenter/Facilitator</b>
*****	*****
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



# 4 Coordinate Worksheets

Chapter 4 consists of twenty-one exercises: 2 Roundtable, 6 Class, 12 Team, 1 Simulation

<u>TYPE</u>	<u>EXERCISE WORKSHEET</u>	<u>PAGE</u>
	4.1.1 Stakeholder Classification	49
	4.1.2 Stakeholder Engagement Assessment	50
	4.1.3 Action Planning	51
	4.2.1 Create Wagon WBS	52
	4.2.2 Kitchen Replacement WBS	53
	4.3.1 Network Diagramming	54
	4.3.2 PDM Networks	55
	4.3.3 Kitchen Replacement Network	56
	4.4.1 Duration Estimates	57
	4.4.2 Estimating Techniques	58
	4.4.3 Kitchen Replacement Timing	59
	4.4.4 Milestones	61
	4.5.1 Resource Smoothing/Leveling	62
	4.5.2 Kitchen Replacement Leveling	63
	4.6.1 Estimating Accuracy	64

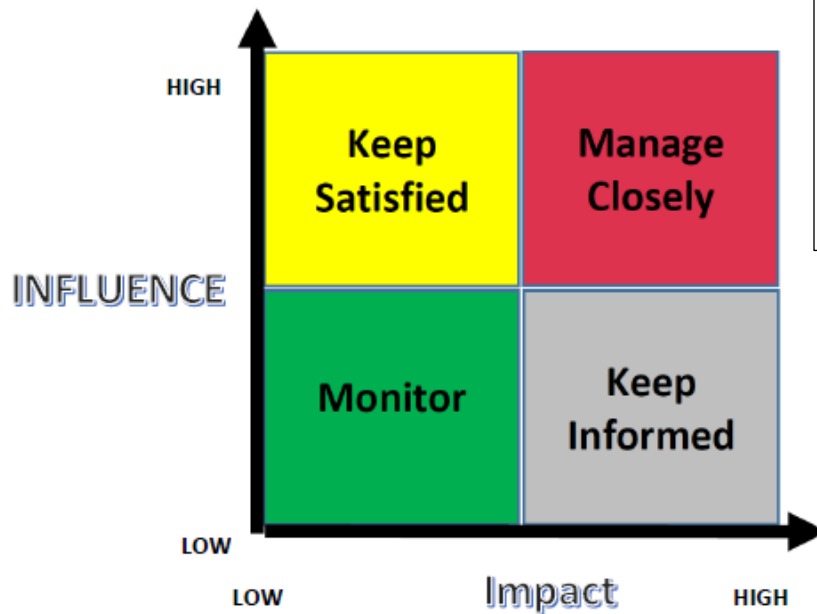
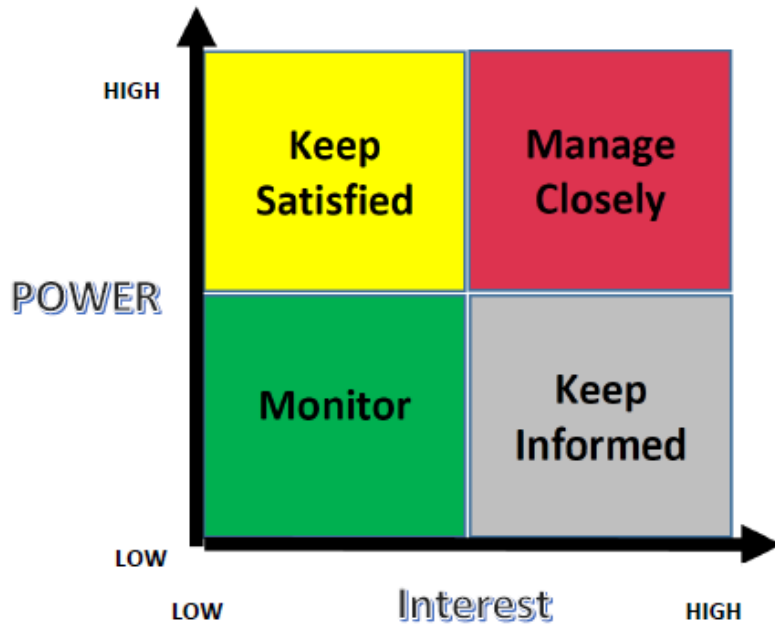
<b><u>TYPE</u></b>	<b><u>EXERCISE WORKSHEET</u></b>	<b><u>PAGE</u></b>
	4.6.2 Kitchen Replacement Budget	65
	4.7.1 Team Assignments	67
	4.7.2 Staff Selection	68
	4.8.1 Team Formation	69
	4.8.2 Team Development Stages	70
	4.8.3 Effective Team Characteristics	71





### 4.1.1 Stakeholder Classification Worksheet

Place the individuals assigned to your team in one quadrant of the Power/Interest grid and the Influence/Impact grid. Explain each selection.



Bakersfield Project			
	Name	Co.	ID
Team 1	H. Morris	GMI	A
	D. Mills	GMI	B
	C. Helmet	HTMI	C
	T. Wadsworth	BCI	D
	C. Atlas	BCI	E
Team 2	V. Clark	GMI	F
	J. Willy	GMI	G
	C. Englehof	HTMI	H
	A. Wennberg	HTMI	I
	Architech	BCI	J
Team 3	A. Rost	GMI	K
	P. Smith	GMI	L
	J. Muller	HTMI	M
	K. Jansen	HTMI	N
	A. Dodd	BCI	O



### 4.1.2 Stakeholder Engagement Assessment Worksheet

Stakeholder Engagement Assessment Matrix							
#	Stakeholder/Company	Unaware	Aware				Engagement Gap R-Y-G
			Resistant	Neutral	Supportive	Leading	
1	Harvey Morris/GMI				C		
2	Victor Clark/GMI				C		
3	John Willy/GMI		C				
4	Diane Mills/GMI			C			
5	Tom Wadsworth/BCI					C	
6	Carol Atlas/BCI			C			
7	Curt Helmut/HTMI	C					
8	James Muller/HTMI		C				



**4.1.3 Action Planning Issues Log Worksheet**

Stakeholder Engagement Action Planning						
Team	#	Issue	Owner	Action	Date	Status
Team 1	1	Information needed for permits?				
	2	Liability during construction?				
	3	On time delivery appliances & cabinets?				
Team 2	4	What work must be contracted?				
	5	Will design double countertop area?				
	6	Containing construction dirt/dust?				
Team 3	7	Can all work be completed in 4 weeks?				
	8	Will tear out expose problems?				
	9	Is general contractor needed?				



**4.2.1 Create Wagon WBS Worksheet**

<b>Wagon WBS</b>							
Level 1							
Level 2							
Level 3							



### 4.2.2 Kitchen Replacement WBS Worksheet

■ Team 1 - Project Phase \_\_\_\_\_

■ Team 2 - Project Phase \_\_\_\_\_

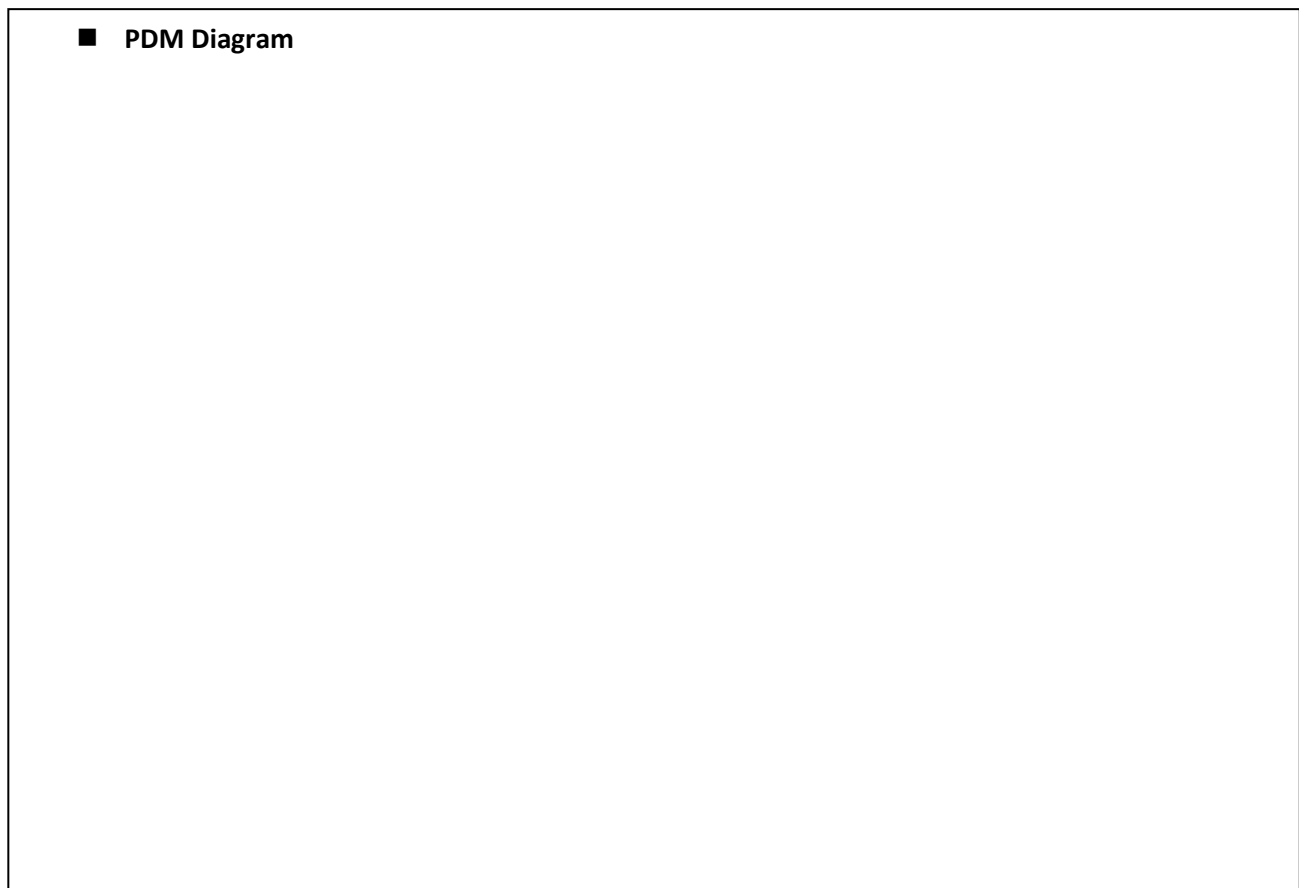
■ Team 3 - Project Phase \_\_\_\_\_



### 4.3.1 Network Diagramming Worksheet

**Instructions:** Use the information in the table to create an AON diagram. On site class displays this sheet on a surface that can be easily erased. On line class uses the electronic white board with tools allowing creation of boxes and arrows

Activity	A	B	C	D	E	F	G
Predecessors	-	-	-A, B	B	A	C, D	E, F





### 4.3.2 PDM Network Worksheet

#### ■ Team 1 - PDM Network Problem 1

Activity	A	B	C	D	E	F	G	H	I
Predecessors	-	-	A	A	B	B	D, E	C	F, G, H

#### ■ Team 2 - PDM Network Problem 2

Activity	A	B	C	D	E	F	G	H	I
Predecessors	-	A	A	A	B	B	B	C, D	E, F, G, H

#### ■ Team 3 - PDM Network Problem 3

Activity	A	B	C	D	E	F	G	H	I
Predecessors	-	-	-	A, B	B, C	D, E	E	A	H



### 4.3.3 Kitchen Replacement Network Worksheet

■ **Team 1 - Design/Procure Phase Network Diagram**

{Paste picture of white board diagram here if working in a classroom}

■ **Team 2 - Tear Out/Prep Phase Network Diagram**

{Paste picture of white board diagram here if working in a classroom}

■ **Team 3 - Install Phase Network Diagram**

{Paste picture of white board diagram here if working in a classroom}





#### 4.4.1 Duration Estimates Worksheet

- When you asked, how long will it take to do a task? How do you arrive at your answer?

- Do you ever add in extra time? Why?

- What are the consequences of being under or over your estimate?



## 4.4.2 Estimating Techniques Worksheet

■ **Team 1 – Topic 4.4 Duration and Milestones Practice Problem 1**

List any assumptions you make regarding this problem and show all calculations

■ **Team 2 – Topic 4.4 Duration and Milestones Practice Problem 2**

List any assumptions you make regarding this problem and show all calculations

■ **Team 3 – Topic 4.4 Duration and Milestones Practice Problem 3**

List any assumptions you make regarding this problem and show all calculations



### 4.4.3 Kitchen Replacement Timing Worksheets

KRP Network Paths Table						
Path	Team 1		Team 2		Team 3	
	Description	Time(Days)	Description	Time(Days)	Description	Time(Days)
A						
B						
C						
D						
E						
F						
G						
H						
I						

## Bar Chart Timing Worksheets

### Team 1

Design Procure Phase Bar Chart																																			
ID	Task Name	Pred.	Dur. Days	Res. Init.	Working Days																														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2	Design Concept		5 days																																
3	Order Appliances		5 days																																
4	Design Layout		1 day																																
5	Order Tile, Sink, Disposal		2 days																																
6	Ord. Cupbds. & Ctrtop		1 day																																
7	Design Electrical		2 days																																
8	Order Elect. Fixtures		2 days																																
9	Contract Cupbd. Install		3 days																																
10	Contract Tile Install		3 days																																
11	Contract Carp, Elec, Plumb		5 days																																
12	Secure Permits		8 days																																
13	Delv. Matls. Ordered		24 days																																

**Team 2**

Tear Out and Prep Phase Bar Chart																				
ID	Task Name	Pred.	Duration	Res. Initials	Working Days															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
3	Disc & remove Burners		2 days																	
4	Disc & Remove sink /faucets		1 day																	
5	Disc & remove oven		1 day																	
6	Remove countertop	3,4	1 day																	
7	Remove lwr Cabinets		2 days																	
8	Remove Upper Cabinets		1 day																	
9	Remove soffit		1 day																	
10	Remove drywall behind cupbds.	7,9	1 day																	
11	Remove floor tile	7,9	1 day																	
12	Rough In Elec		2 days																	
13	Rough In Plumbing		1 day																	
14	Install new Drywall	11,12,13	1 day																	
15	Paint	14	1 day																	

**Team 3**

Install Phase Bar Chart																				
ID	Task Name	Pred.	Duration	Res. Initial	Working Days															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14		
4	Finish Electrical Outlets		1 day																	
5	Install Upper Cabinets	4	2 days																	
6	Install Lower Cabinets	4	1 day																	
7	Install Conutertop	6	1 day																	
8	Install Sink w/disposal	7	1 day																	
9	Install Dishwasher	7	2 days																	
10	Install Ceiling Light w/fan	5	1 day																	
11	Install Microwave	5	2 days																	
12	Install new Floor Tile	8,9	1 day																	
13	Install Stove	12	1 day																	
14	Finish Trim	12	2 days																	
15	Paint Trim & Touch Up	10,11,13,14	1 day																	

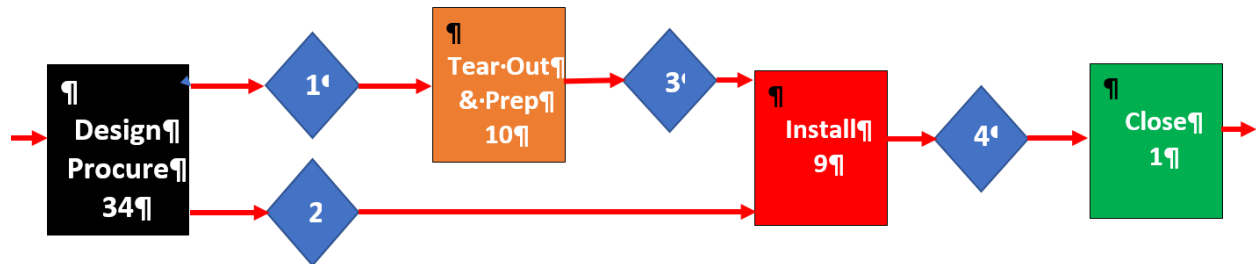
KRP Timing Solutions Table	
Phase/Milestone Event	Days to Complete
Permits Complete	
Material Delivery Complete	
Design /Procure	
Tear Out & Prep	
Install	
Close	



### 4.4.4 Milestones Worksheet

Milestone Worksheet 

- 1. Permits complete -- Predecessor to Tear-Out & Prep: Disconnect and remove countertop burners, oven, sink, and faucet. (DAY \_\_\_\_)
- 2. Material Delivery Complete -- Predecessor to Install: Finish Electrical Outlets. (DAY \_\_\_\_)
- 3. Paint Prep Complete -- Predecessor to Install: Finish Electrical Outlets. (DAY \_\_\_\_)
- 4. Paint Trim & Touch-Up Complete -- Predecessor to Close Phase. (DAY \_\_\_\_)





**4.5.1 Resource Smoothing/Leveling Worksheet**

**Resource Smoothing**

Task	Wk1	Wk2	Wk3	Wk4	Wk5	Wk6
A	2	2	2			
B			3	3	3	
C				4	4	4
D		1	1	1		
E		1	1	1	1	1
<b>Total</b>	2	4	7	9	8	5
<b>Smooth</b>						
Task	Wk1	Wk2	Wk3	Wk4	Wk5	Wk6
A						
B						
C						
D						
E						
<b>Total</b>						

**Resource Leveling @ 4 Workers**

Task	Wk1	Wk2	Wk3	Wk4	Wk5	Wk6	Wk7	Wk8	Wk9
A	2	2	2						
B			3	3	3				
C				4	4	4			
D		1	1	1					
E		1	1	1	1	1			
<b>Total</b>	2	4	7	9	8	5			
<b>Level @ 4 Workers</b>									
Task	Wk1	Wk2	Wk3	Wk4	Wk5	Wk6	Wk7	Wk8	Wk9
A									
B									
C									
D									
E									
<b>Total</b>									



**4.5.2 Kitchen Project Leveling Worksheet**

<b>KRP Leveling Solution Table</b>				
<b>Status</b>	<b>Parameter</b>	<b>Design &amp; Procure</b>	<b>Tear Out &amp; Prep</b>	<b>Install</b>
<b>Original Plan</b>	<b>Overallocated Resources</b>			
	<b>Overallocated Occurances</b>			
	<b>Days to Complete</b>			
<b>After Smoothing</b>	<b>Overallocated Resources</b>			
	<b>Overallocated Occurances</b>			
	<b>Days to Complete</b>			
<b>After Leveling</b>	<b>Overallocated Resources</b>			
	<b>Overallocated Occurances</b>			
	<b>Days to Complete</b>			



**4.6.1 Estimating Accuracy Worksheet**

<b>Estimate Accuracy Corrective Actions</b>			
<b>Team</b>	<b>Item</b>	<b>Bad Estimate Root Cause</b>	<b>Corrective Action</b>
<b>Team 1</b>	<b>1</b>	Missing scope items	
	<b>2</b>	Wrong equipment	
	<b>3</b>	Improper estimating method	
<b>Team 2</b>	<b>4</b>	Poorly defined WBS	
	<b>5</b>	No allowance for inflation	
	<b>6</b>	Wrong materials/quantity	
<b>Team 3</b>	<b>7</b>	Inadequate risk allowances	
	<b>8</b>	Too Optimistic	
	<b>9</b>	Wrong human skills/quantity	





**4.6.2 Kitchen Replacement Budget Worksheets**

<b>Team 1 - Design Procure Phase Budget</b>								
ID	Task Name	Dur. Days	Res. Init.	Rate/hr	Rate/day	Variable	Fixed	Total
1	Design Concept	5 days	PM					
2	Order Appliances	5 days	SP					
3	Design Layout	1 day	DE					
4	Order Tile, Sink, Disposal	2 days	SP					
5	Ord. Cupbds. & Ctrtop	1 day	SP					
6	Design Electrical	2 days	DE					
7	Order Elect. Fixtures	2 days	SP					
8	Contract Cupbd. Install	3 days	PM					
9	Contract Tile Install	3 days	PM					
10	Contract Carp, Elec, Plumb	5 days	PM					
11	Secure Permits	8 days	PM					
12	Delv. Matls. Ordered	24 days	LO					
<b>Design Procure Phase Budget Totals</b>								

<b>Team 2 - Tear Out and Prep Phase Budget</b>								
ID	Task Name	Duration	Res. Initials	Rate/hr	Rate/day	Variable	Fixed	Total
1	Disc & remove Burners	2 days	EL					
2	Disc & Remove sink /faucets	1 day	PB					
3	Disc & remove oven	1 day	EL					
4	Remove countertop	1 day	CP					
5	Remove lwr Cabinets	2 days	CP					
6	Remove Upper Cabinets	1 day	CP					
7	Remove soffit	1 day	CP					
8	Remove drywall behind cupbds.	1 day	CP					
9	Remove floor tile	1 day	CP					
10	Rough In Elec	2 days	EL					
11	Rough In Plumbing	1 day	PB					
12	Install new Drywall	1 day	CP					
13	Paint	1 day	PM					
<b>Tear Out and Prep Phase Budget Totals</b>								

Team 3 - Install Phase Budget								
ID	Task Name	Duration	Res. Initials	Rate/hr	Rate/day	Variable	Fixed	Total
1	Finish Electrical Outlets	1 day	EL					
2	Install Upper Cabinets	2 days	CI					
3	Install Lower Cabinets	1 day	CI					
4	Install Conutertop	1 day	CI					
5	Install Sink w/disposal	1 day	PB					
6	Install Dishwasher	2 days	PB					
7	Install Ceiling Light w/fan	1 day	EL					
8	Install Microwave	2 days	EL					
9	Install new Floor Tile	1 day	TI					
10	Install Stove	1 day	EL					
11	Finish Trim	2 days	CP					
12	Paint Trim & Touch Up	1 day	PM					
<b>Install Phase Budget Totals</b>								

**Budget Solution Table**

Project Phase	Variable Cost	Fixed Cost	Total Cost
Design/Procure			
Tear Out/ Prep			
Install			
Close			
<b>Total Project</b>			



4.7.1 Team Assignments Worksheet

Company	Project Team Participants	
	Leadership Team - Team 1	Engineering Team - Team 2
GMI		
HTMI		
BCI		
Contract		
Company	Project Team Participants	
	Construction Team - Team 3	Plant Start Up Team - Team 3
GMI		
HTMI		
BCI		
Contract		



**4.7.2 Staff Selection Criteria Worksheet**

<b>Team 1 - Project Engineer</b>		
<b>Selection Criteria</b>	<b>Weight</b>	<b>Logic</b>

<b>Team 2 - Project Scheduler</b>		
<b>Selection Criteria</b>	<b>Weight</b>	<b>Logic</b>

<b>Team 3 - Financial Analyst</b>		
<b>Selection Criteria</b>	<b>Weight</b>	<b>Logic</b>



### 4.8.1 Team Formation Worksheet – Team \_\_\_\_

■ Agenda for \_\_\_\_\_ Team Formation Meeting

■ Deliverables from \_\_\_\_\_ Team Formation Meeting



### 4.8.2 Team Development Stages Worksheet

- What is the stage of team development after the team formation event in the previous exercise?

- In your experiences with teams did you see these stages and can you give some examples?

- How long did each stage take and did they repeat?



### 4.8.3 Effective Team Characteristics Worksheet

■ **Barriers to Effective Teams**

■ **Ideas to Mitigate Barriers**














# 5 Control Worksheets

Chapter 5 consists of 24 exercises: 2 Roundtable, 6 Class, 13 Team, 3 Simulation

<u>TYPE</u>	<u>EXERCISE WORKSHEET</u>	<u>PAGE</u>
	5.1.1 Project Control	75
	5.2.1 Forward and Reverse Pass	76
	5.2.2 Kitchen Replacement Critical Path	77
	5.2.3 Burndown Chart	80
	5.3.1 Crash Cost	81
	5.3.2 Schedule Recovery	82
	5.3.3 Schedule Improvement	83
	5.4.1 Earned Value Example	84
	5.4.2 Earned Value	85
	5.4.3 Forecasting Example	89
	5.4.4 Forecasting	90
	5.4.5 Performance Trends	94
	5.5.1 Change Control Process	95
	5.5.2 Change Control Implementation	96
	5.6.1 Quality Benefits	100

<u>TYPE</u>	<u>EXERCISE WORKSHEETS</u>	<u>PAGE</u>
	5.6.2 Quality Metrics	101
	5.6.3 Project Deliverables Validation	103
	5.6.4 Project Quality Situations	104
	5.7.1 Conflict Reduction	105
	5.7.2 Personality Conflict	106
	5.7.3 Project Scorecard	107
	5.8.1 Risk Identification and Assessment	108
	5.8.2 Risk Register	109
	5.8.3 Risk Management	110



**5.1.1 Project Control Worksheet**

<b>Team 1 - Ideas to Correct Negative Time Variances</b>		
<b>Idea Description</b>	<b>Impact</b>	
	<b>Cost</b>	<b>Scope</b>

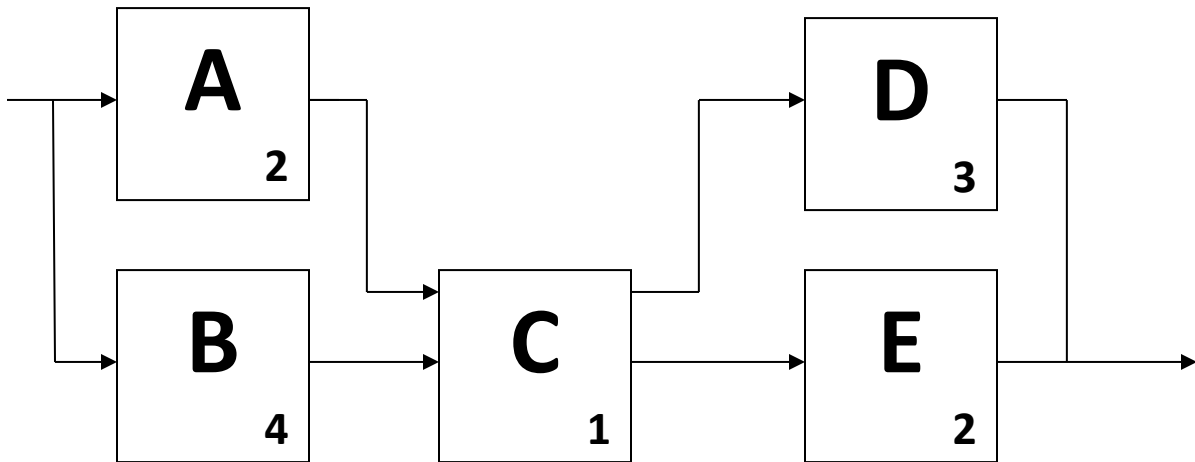
<b>Team 2 - Ideas to Correct Negative Cost Variances</b>		
<b>Idea Description</b>	<b>Impact</b>	
	<b>Time</b>	<b>Scope</b>

<b>Team 3 - Ideas to Correct Negative Scope Variances</b>		
<b>Idea Description</b>	<b>Impact</b>	
	<b>Time</b>	<b>Cost</b>



**5.2.1 Forward and Reverse Pass Worksheet**

**Part A: Using PDM Network Diagram**



**Part B: Using Data Table**

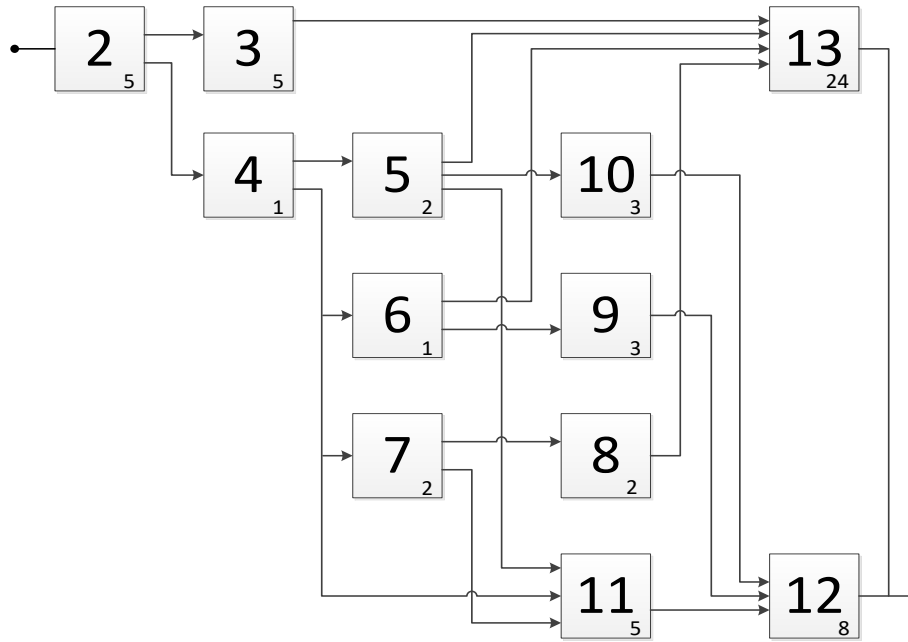
Act.	Immed. Pred.	Est. Time	Earliest		Latest		Float	Critical Path
			ES	EF	LS	LF		
A	-	2						
B	-	4						
C	A,B	1						
D	C	3						
E	C	2						



5.2.2 Kitchen Replacement Critical Path Worksheets

**Team 1 - Design Procure Critical Path Worksheet**

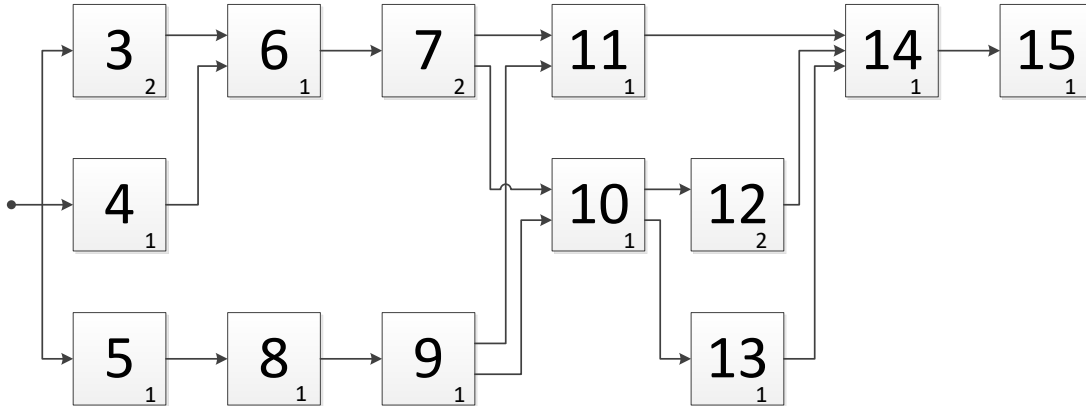
DESIGN PROCURE PHASE



ID	Task	Predecessor	Duration	Earliest		Latest		Float	CP
				ES	EF	LS	LF		
0	<b>Kitchen Project</b>								
1	<b>Design/Procure</b>								
2	Concept Design		5						
3	Order Appliances	2	5						
4	Layout Design	2	1						
5	Order Flr tile, sink, Disp.	4	2						
6	Order Cupboard/top	4	1						
7	Electrical Design	4	2						
8	Order Electrical Fixtures	7	2						
9	Contract Cupb. Install	6	3						
10	Contract Tile Install	5	3						
11	Contract	4,5,7	5						
12	Secure required permits	9,10,11	8						
13	Deliver Materials ordered	3,5,6,8	24						
14	<b>Tear Out/ Prep</b>								
15	<b>Install</b>								
16	<b>Close</b>								

### Team 2 - Tear Out Prep Critical Path Worksheet

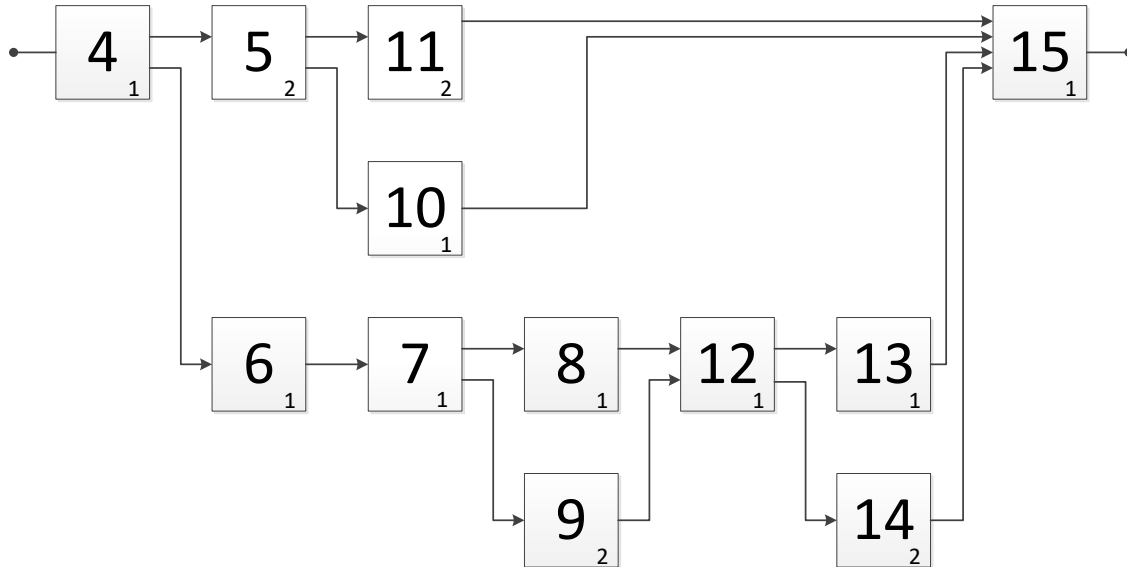
#### TEAR OUT PREP CRITICAL PATH



ID	Task	Predecessor	Duration	Earliest		Latest		Float	CP
				ES	EF	LS	LF		
0	<b>Kitchen Project</b>								
1	<b>Design/Procure</b>								
2	<b>Tear Out/ Prep</b>								
3	Remove Burners		2						
4	Remove Sink/Faucet		1						
5	Disc & Remove oven		1						
6	Remove Countertop	3,4	1						
7	Remove Lower Cab.	6	2						
8	Remove Upper Cab.	5	1						
9	Remove Soffett	8	1						
10	Remove Drywall	7,9	1						
11	Remove Floor Tile	7,9	1						
12	Rough in Electrical	10	2						
13	Rough in Plumbing	10	1						
14	Install new Drywall	11,12,13	1						
15	Paint	14	1						
16	<b>Install</b>								
17	<b>Close</b>								

### Team 3 - Install Critical Path Worksheet

INSTALL PHASE

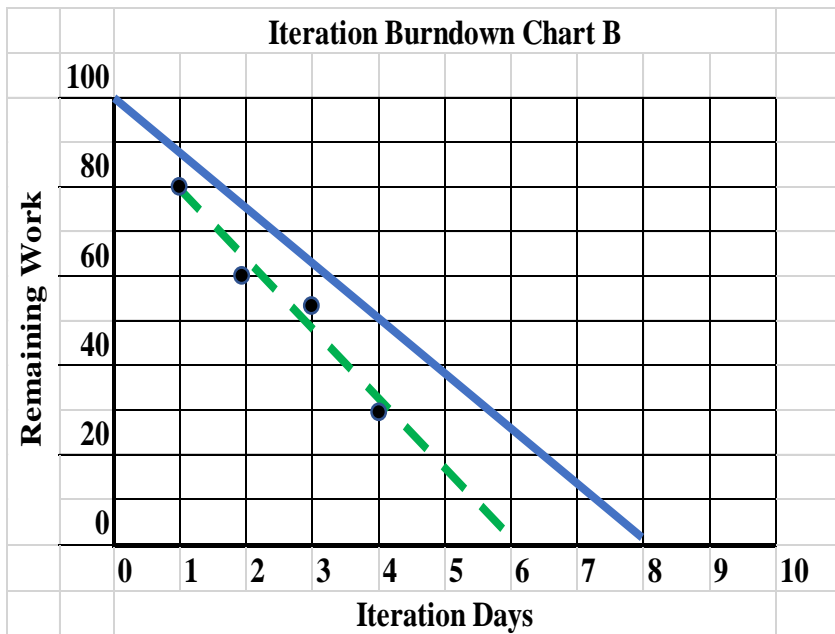
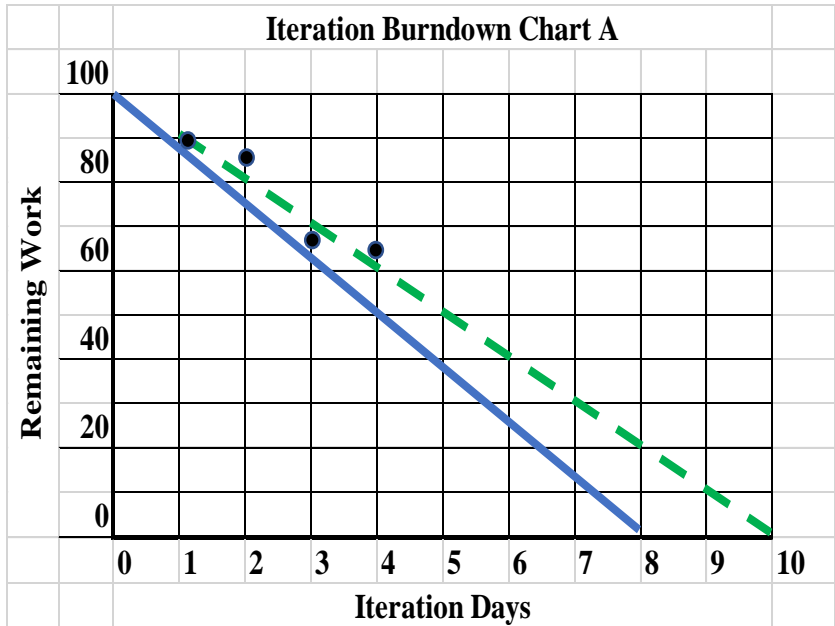


ID	Task	Predecessor	Duration	Earliest		Latest		Float	CP
				ES	EF	LS	LF		
0	<b>Kitchen Project</b>								
1	<b>Design/Procure</b>								
2	<b>Tear Out/ Prep</b>								
3	<b>Install</b>								
4	Finish Electrical Outlets		1						
5	Install Upper Cabinets	4	2						
6	Install Lower Cabinets	4	1						
7	Install Countertop	6	1						
8	Install Sink w/disposal	7	1						
9	Install Dishwasher	7	2						
10	Install Light w/fan	5	1						
11	Install Microwave	5	2						
12	Install new Floor Tile	8,9	1						
13	Install Stove	12	1						
14	Finish Trim	12	2						
15	Paint Trim & Touch Up	10,11,13,14	1						
16	<b>Close</b>								



5.2.3 Burndown Chart Worksheet

**Burndown Chart Worksheet**



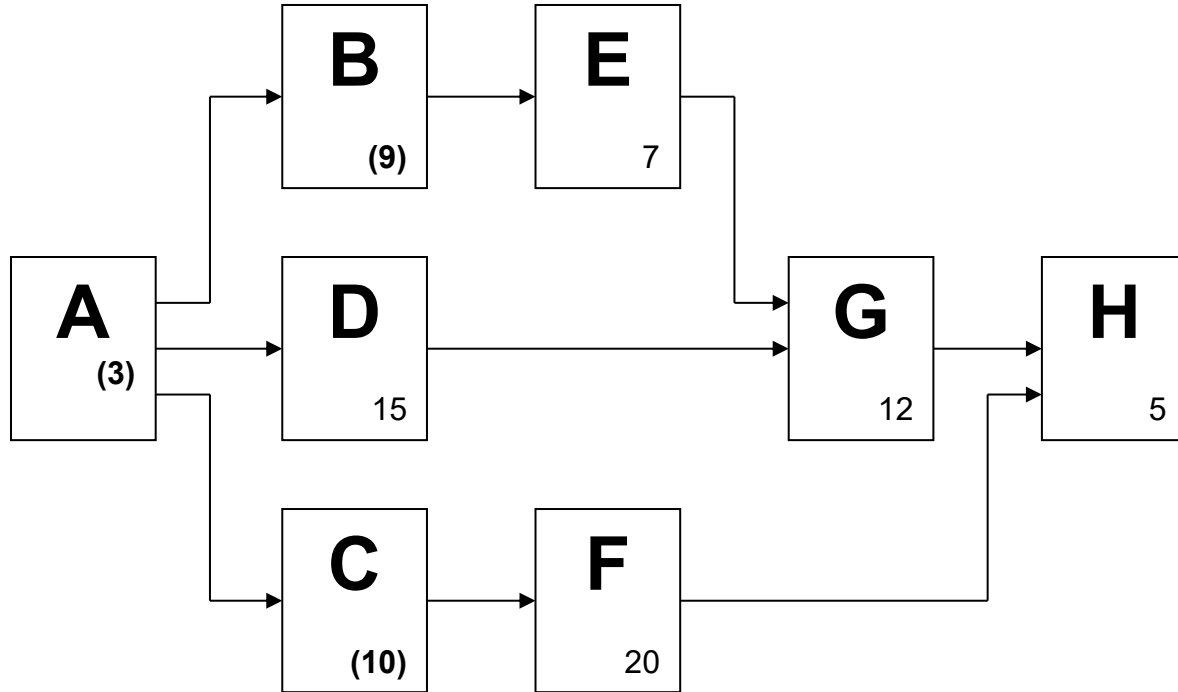
- 1 What is the planned duration for iterations A and B? \_\_\_\_
- 2 Which chart is ahead of schedule and what is the expected finish? \_\_\_\_, \_\_\_\_
- 3 Which chart is behind schedule and what is the expected finish? \_\_\_\_, \_\_\_\_





### 5.3.1 Crash Cost Worksheet

**Network:** Activities A, B and C are completed and durations are in parentheses.



The crash times for D, E, F, G and H are given in the table below. Assume a linear relationship between estimated times and crash times to compute and record the missing data in the following two charts. The cost to complete activities A, B, and C was \$25000.

**Data Table**

Activity	Time (wks)		Cost (\$000s)		Time Difference	Cost Difference	Incremental Crash Cost/week
	Normal	Crash	Normal	Crash			
D	15	10	15	30			
E	7	6	10	12			
F	20	10	10	20			
G	12	8	12	20			
H	5	4	20	24			

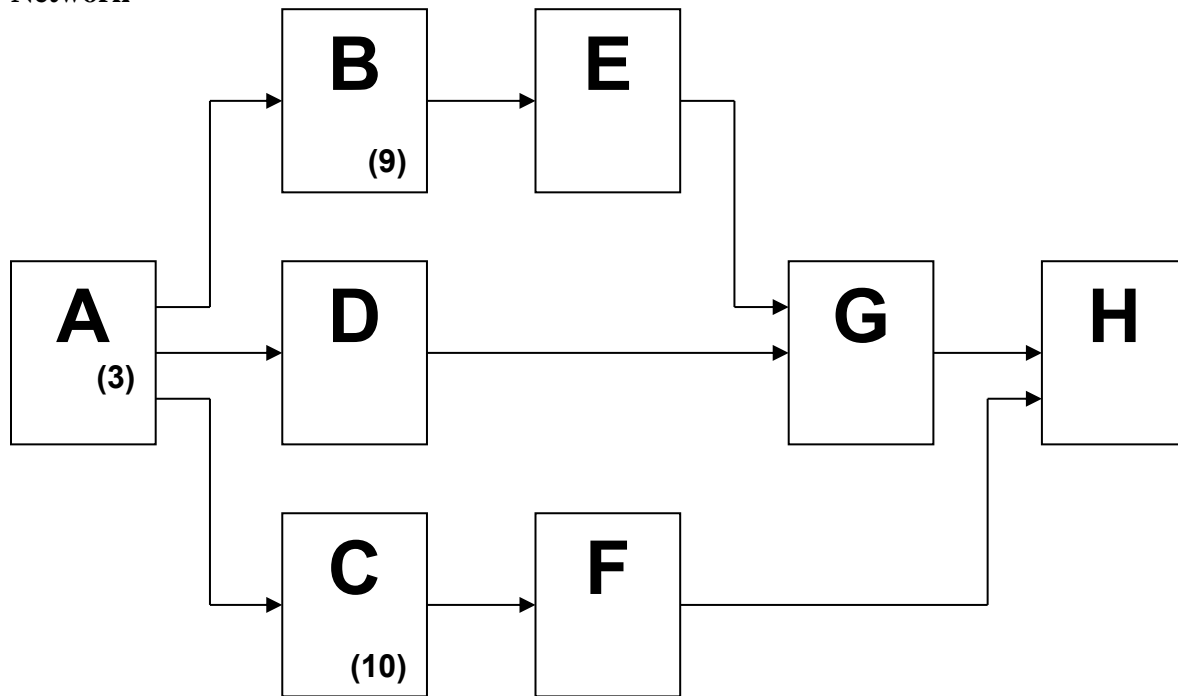
**Crash Comparison Table**

Parameter	Project Before Crashing	Team Assigned
Completion Time		1
Critical Path		2
Cost		3



5.3.2 Schedule Recovery Worksheet

Network



Data Table

Activity	Time (wks)		Cost (\$000s)		Incremental Crash Cost/week	Project After Crashing		Critical Path
	Normal	Crash	Normal	Crash		Cost	Time	
A						\$25K	3	
B							9	
C							10	
D	15	10	15	30				
E	7	6	10	12				
F	20	10	10	20				
G	12	8	12	20				
H	5	4	20	24				

Crash Comparison Table

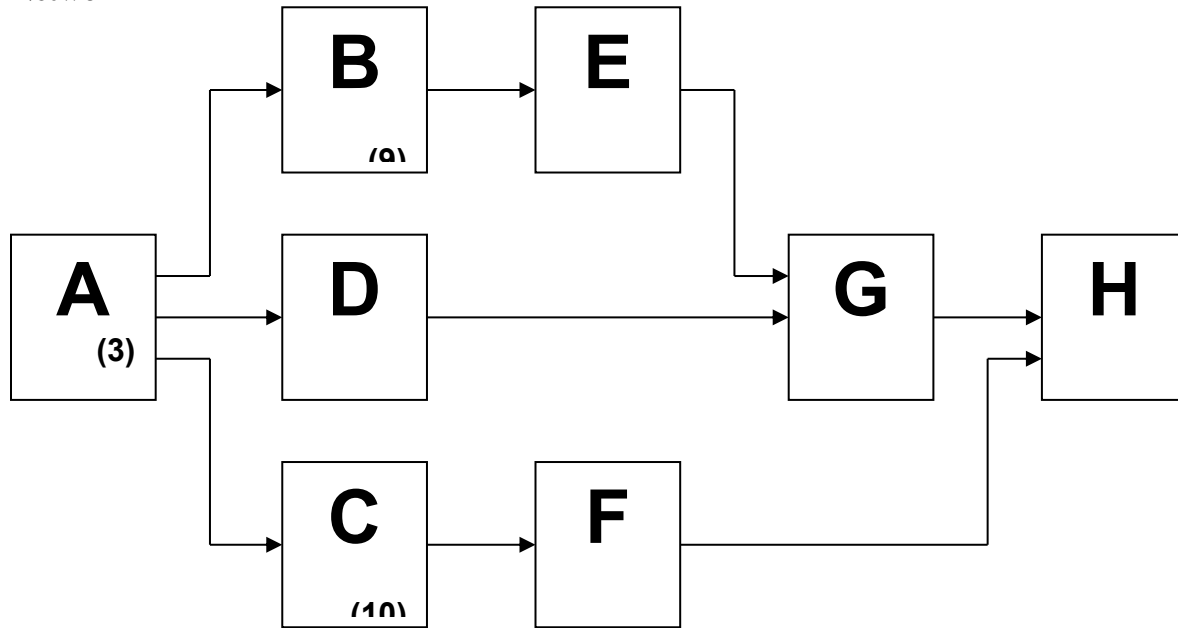
Parameter	Project Before Crashing	Project After Crashing
Completion Time		
Critical Path		
Cost		



5.3.3 Schedule Improvement Worksheet

Team \_\_\_ - Improve Schedule to \_\_\_ Weeks

Network



Data Table

Activity	Time (wks)		Cost (\$000s)		Incremental Crash Cost/week	Schedule Imprv		Critical Path
	Normal	Crash	Normal	Crash		Cost	Time	
A						\$25K	3	
B							9	
C							10	
D	15	10	15	30				
E	7	6	10	12				
F	20	10	10	20				
G	12	8	12	20				
H	5	4	20	24				

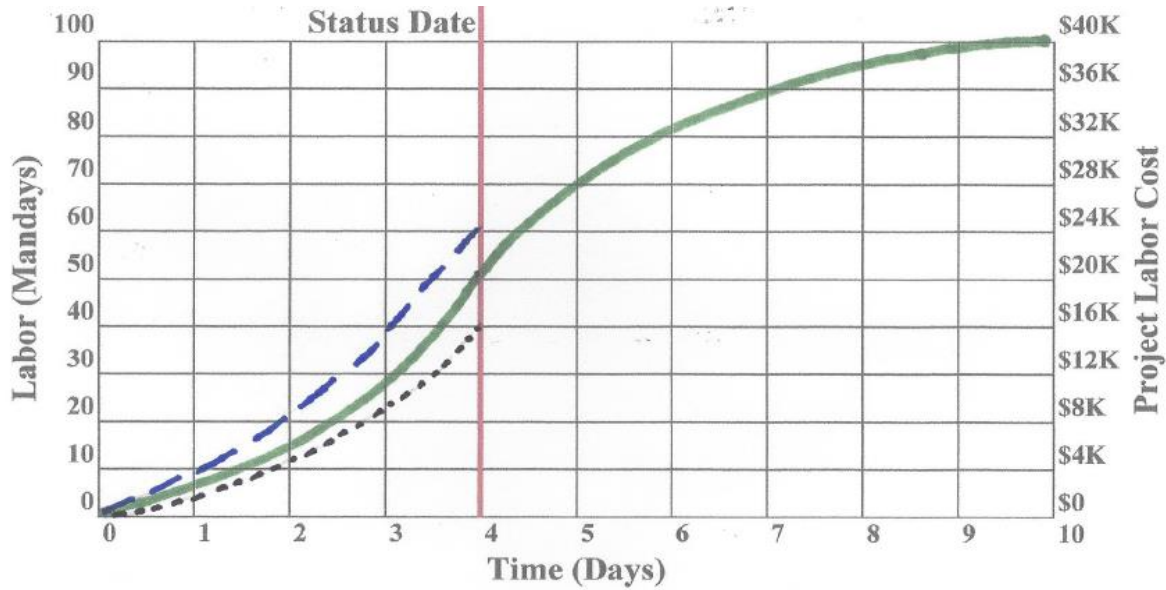
Crash Comparison Table

Schedule Improvement		Team 1	Team 2	Team 3
	36 Wk Schedule	35 Wk Schedule	34 Wk Schedule	33 Wk Schedule
Least Cost Increment				
Critical Path				
Est. at Completion				



5.4.1 Earned Value Example Worksheet

Earned Value Example Case A Worksheet



PV = \_\_\_\_\_

EV = \_\_\_\_\_

AC = \_\_\_\_\_

SV = \_\_\_\_\_

SPI = \_\_\_\_\_

Schedule Status: \_\_\_\_\_

CV = \_\_\_\_\_

CPI = \_\_\_\_\_

Budget Status: \_\_\_\_\_

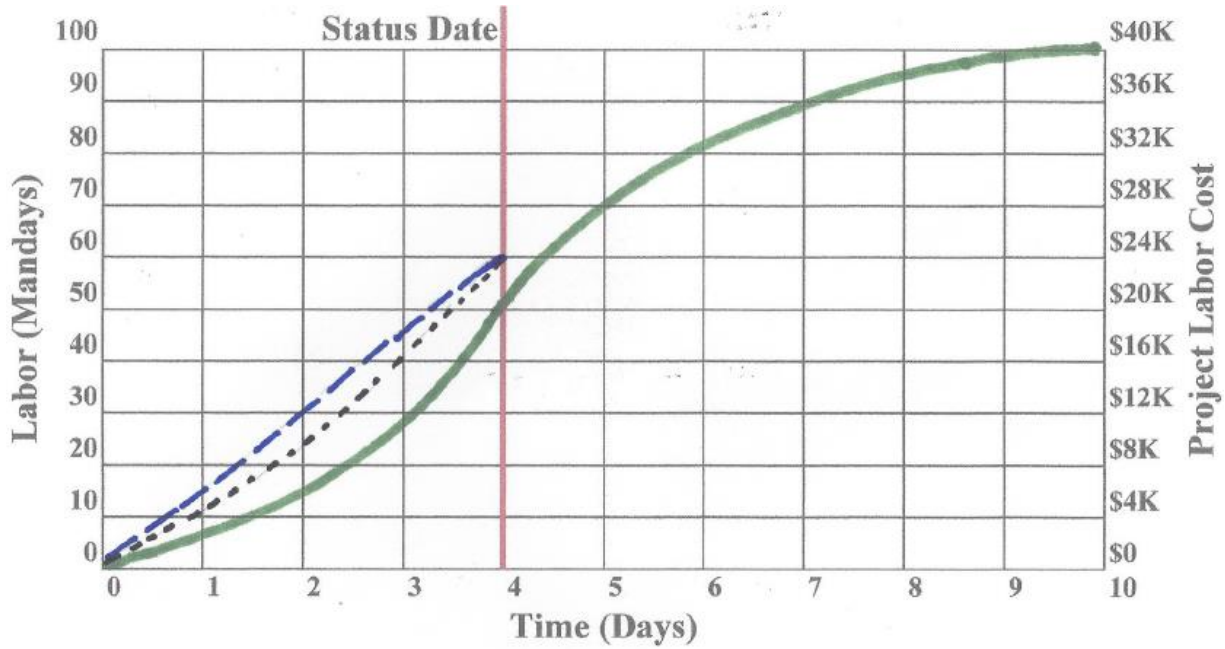
PV	_____
EV	.....
AC	.....

Show Calculations:



5.4.2 Earned Values Worksheets

**Earned Value Case B Worksheet Team 1**



PV = \_\_\_\_\_

EV = \_\_\_\_\_

AC = \_\_\_\_\_

SV = \_\_\_\_\_

SPI = \_\_\_\_\_

Schedule Status: \_\_\_\_\_

CV = \_\_\_\_\_

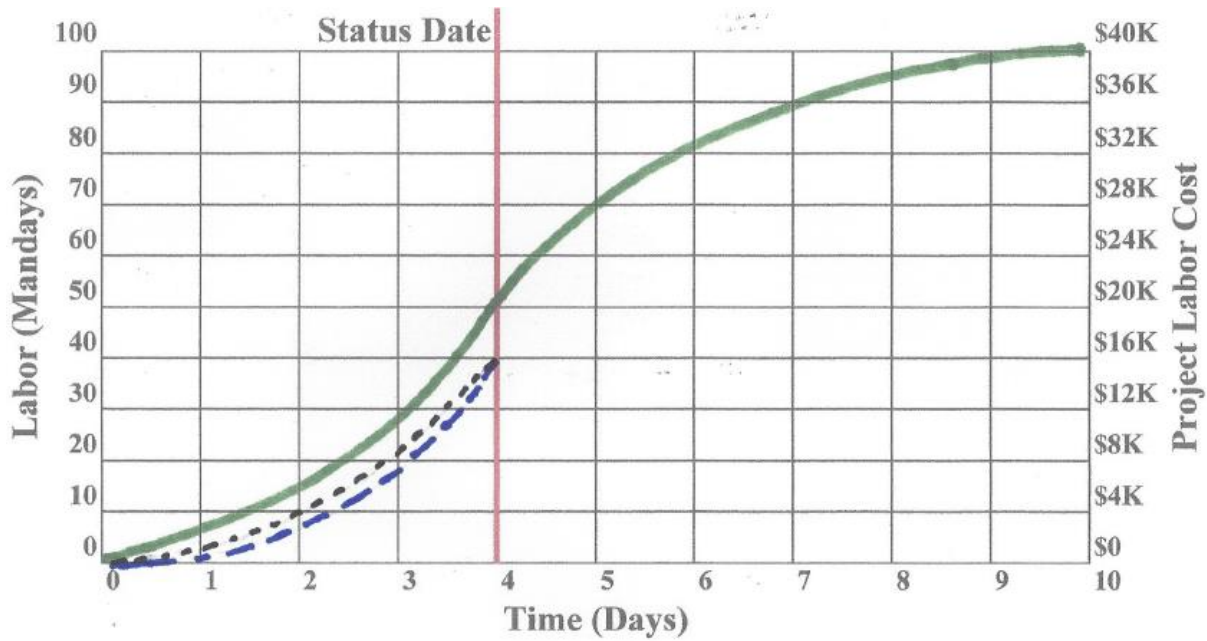
CPI = \_\_\_\_\_

Budget Status: \_\_\_\_\_

PV	———
EV	.....
AC	-----

**Show Calculations:**

## Earned Value Case C Worksheet Team 2



PV = \_\_\_\_\_

EV = \_\_\_\_\_

AC = \_\_\_\_\_

SV = \_\_\_\_\_

SPI = \_\_\_\_\_

Schedule Status: \_\_\_\_\_

CV = \_\_\_\_\_

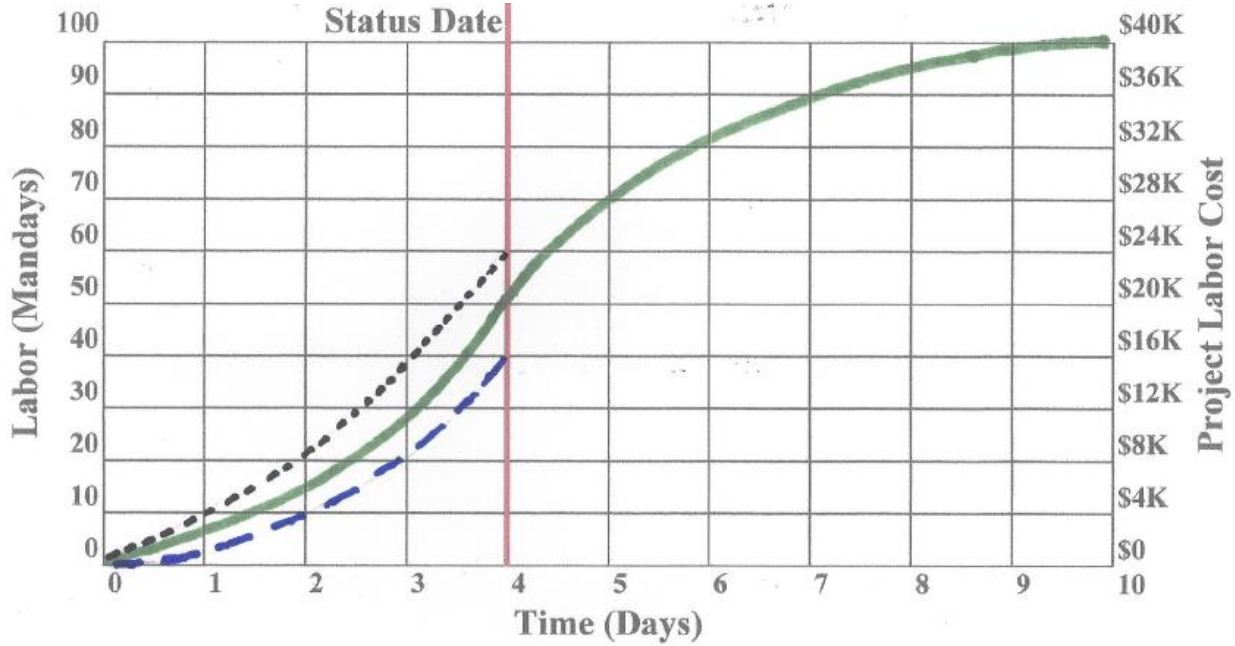
CPI = \_\_\_\_\_

Budget Status: \_\_\_\_\_

PV	———
EV	.....
AC	-----

**Show Calculations:**

### Earned Value Case D Worksheet Team 3



PV = \_\_\_\_\_

EV = \_\_\_\_\_

AC = \_\_\_\_\_

SV = \_\_\_\_\_

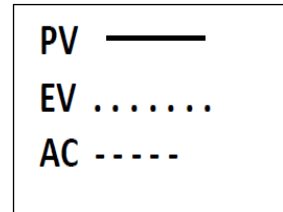
SPI = \_\_\_\_\_

Schedule Status: \_\_\_\_\_

CV = \_\_\_\_\_

CPI = \_\_\_\_\_

Budget Status: \_\_\_\_\_



**Show Calculations:**

**Causes for Earned Value Performance for Cases A through D in exercises 5.4.1 and 5.4.2**

This table lists possible causes leading to the performance reflected in the earned value charts from the current exercise as well as the prior class exercise. The charts are identified as Cases A through D. This summary chart is sequenced after the individual cases and is larger than the one in the *Project Management eWorkbook* to provide more space for answers.

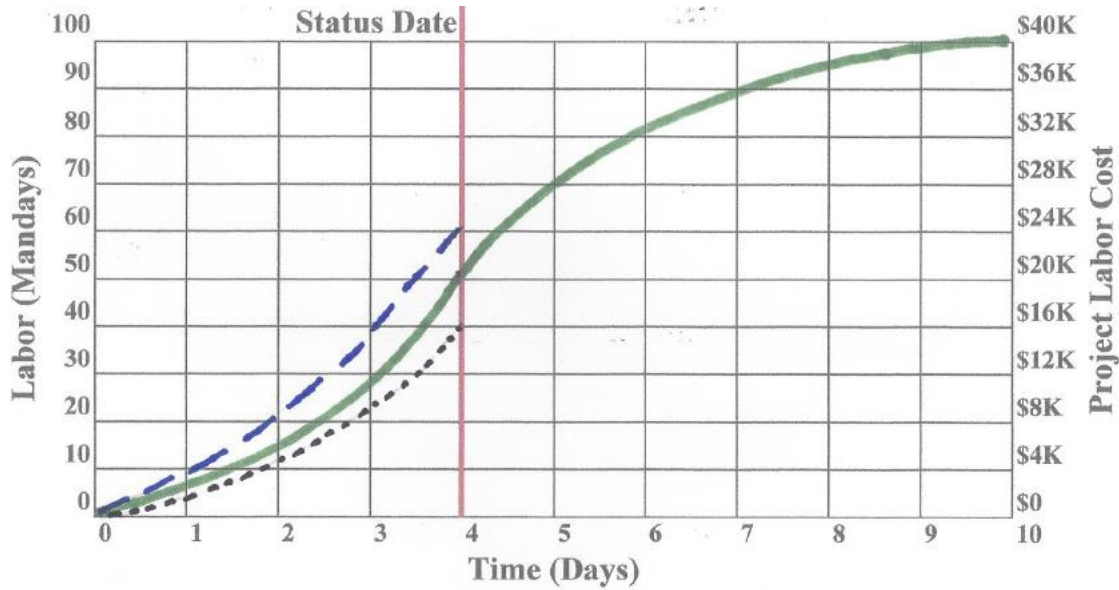
<b>Causes for Earned Value Performance Table</b>			
<b>Case A - Class</b>	<b>Case B - Team 1</b>	<b>Case C - Team 2</b>	<b>Case D - Team 3</b>





5.4.3 Forecasting Example Worksheet

Forecasting Example Case A Worksheet



Compute the following based on the given assumptions:

Forecast @ 100% Eff.ETC = \_\_\_\_\_ EAC = \_\_\_\_\_

ETC Efficiency to Meet the Budget TCPI = \_\_\_\_\_

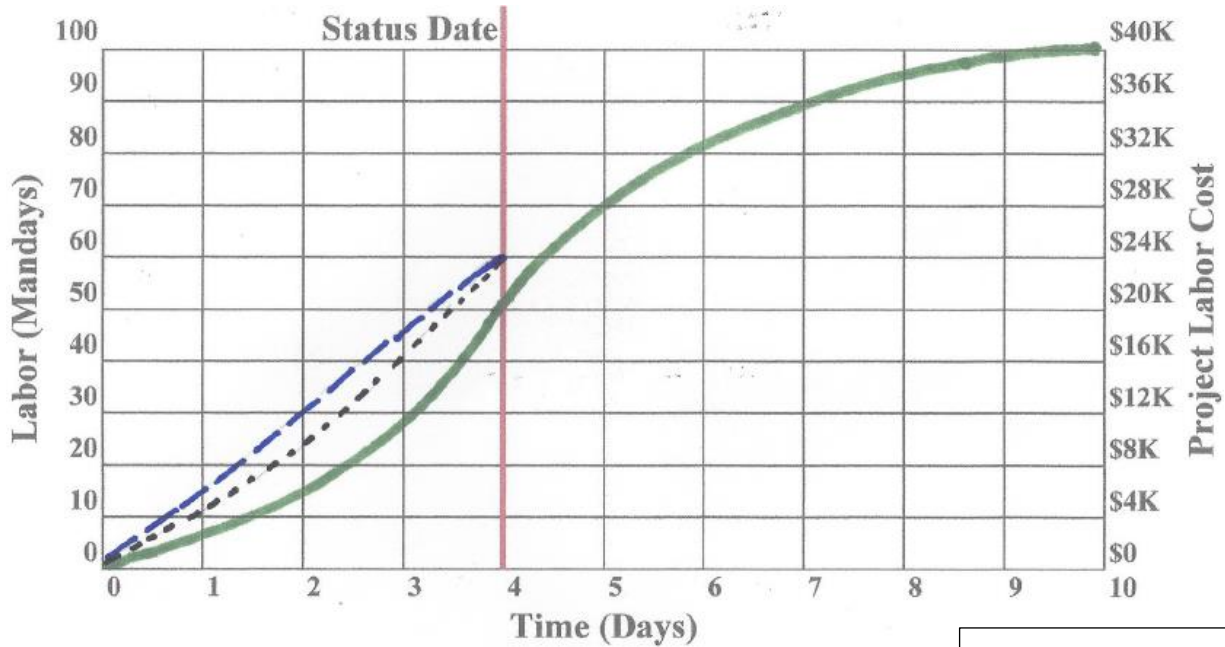
PV	———
EV	.....
AC	.....

Show Calculations:



5.4.4 Forecasting Worksheets

**Forecasting Case B Worksheet Team 1**

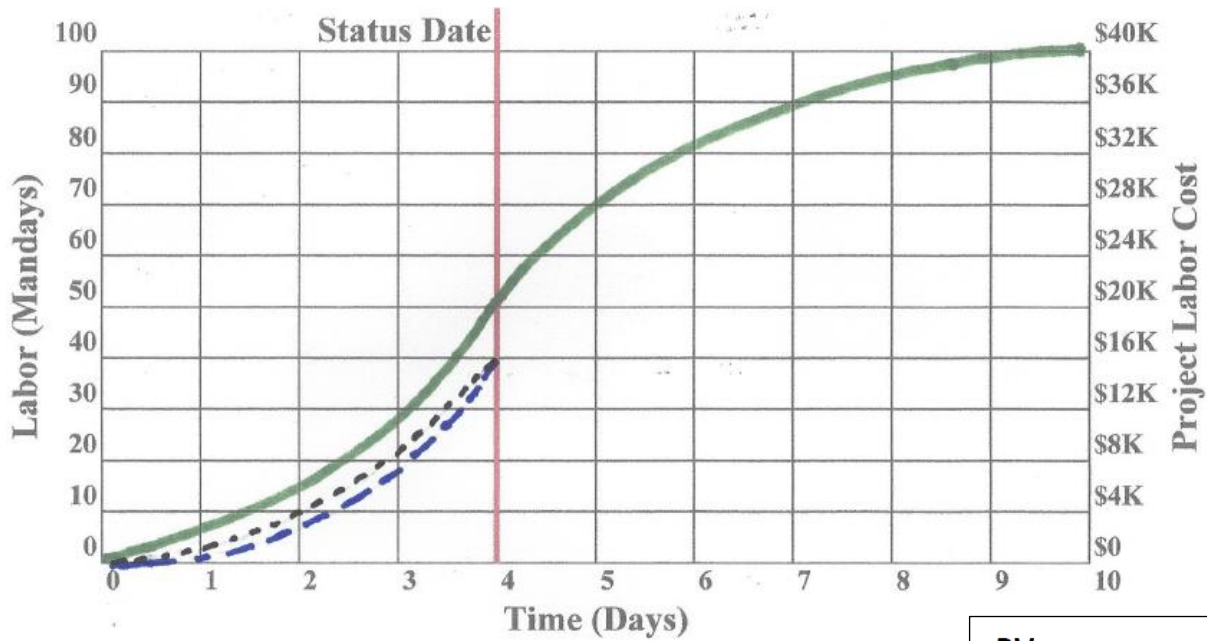


Forecast @ 125% Eff.ETC = \_\_\_\_\_ EAC = \_\_\_\_\_  
 ETC Efficiency to Beat Budget by \$2K TCPI = \_\_\_\_\_

PV	———
EV	.....
AC	-----

**Show Calculations:**

### Forecasting Case C Worksheet Team 2



Forecast @ 125% Eff. ETC = \_\_\_\_\_

EAC = \_\_\_\_\_

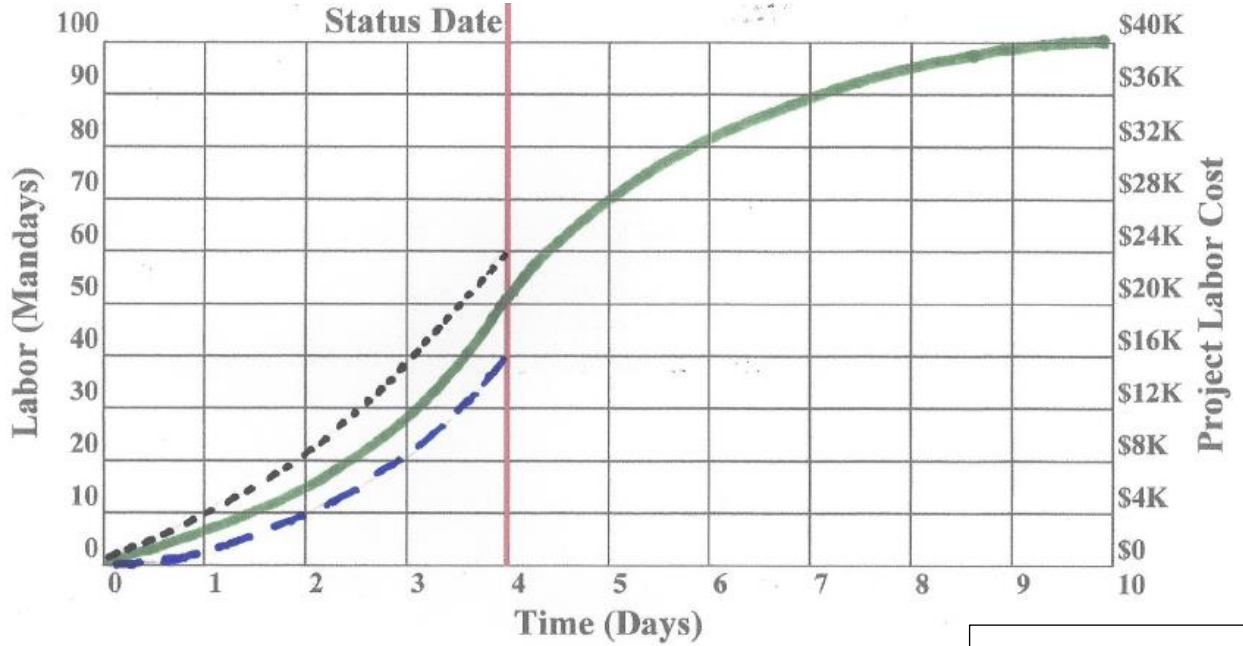
ETC Efficiency to Beat Budget by \$2K

TCPI = \_\_\_\_\_

PV	———
EV	.....
AC	-----

**Show Calculations:**

### Forecasting Case D Worksheet Team 3



Forecast @ Current Eff.

ETC = \_\_\_\_

EAC = \_\_\_\_

ETC Efficiency to Beat Budget by \$12K

TCPI = \_\_\_\_

PV	———
EV	.....
AC	-----

**Show Calculations:**

**Forecasting Comparison Table for Cases A through D in exercises 5.4.3 and 5.4.4**

This table summarizes the forecasts for the earned value charts from the current exercise as well as the prior class exercise. The charts are identified as Cases A through D. This summary chart is sequenced after the individual cases and is larger than the one in the *Project Management eWorkbook*.

As current and forecasted efficiencies are recorded for each case, the probability of meeting the forecast is discussed and recorded in terms of zero, low, medium, and high. After agreeing on probability the cases are prioritized with one being the most likely to the least likely.

<b>Probability of Meeting New Budget Goal Table</b>				
<b>Case</b>	<b>Current Eff.</b>	<b>TCPI Eff.</b>	<b>Probability</b>	<b>Priority</b>
Case A - Class				
Case B - Team 1				
Case C - Team 2				
Case D - Team 3				



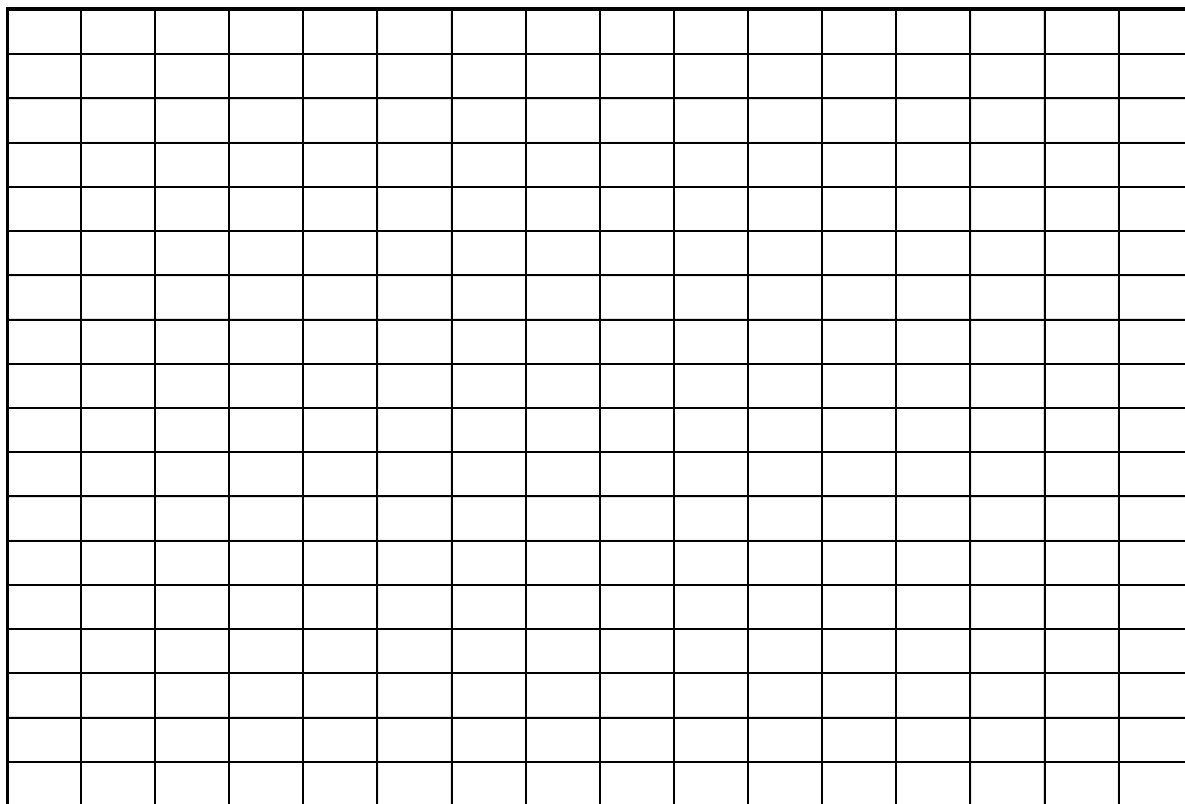
**5.4.5 Performance Trends Worksheet**

**Performance Trend Case E Worksheet Team \_\_\_\_\_**

**Project Data:** The following table reflects data for the first five weeks of an eight-week project. The data represents the cumulative costs from the beginning of the project to the end of the specified week for each parameter. (i.e. 350 is the cumulative EV for the first three weeks.)

Parameter	Week							
	1	2	3	4	5	6	7	8
PV	50	100	300	500	600	700	750	800
AC	100	200	400	600	650			
EV	75	150	350	550	625			

Line Graph of Project Parameters from above chart.



Assigned Week \_\_\_\_ PV= \_\_\_\_\_ AC = \_\_\_\_\_ EV = \_\_\_\_\_

CPI = \_\_\_\_\_ SPI = \_\_\_\_\_

EAC = \_\_\_\_\_ Budget Variance at Completion = \_\_\_\_\_



**5.5.1 Change Control Process Worksheet Team \_\_\_\_\_**

**Change Request Form**

**Change Request Flow Chart**



## 5.5.2 Change Control Implementation Worksheets

### **Change Control Implementation Worksheet A – Team 1**

#### **Material Substitution**

During the equipment build at HTMI's plant in Brazil the Direct Materials Purchasing Agent, Adolph Hummer, decided to substitute a different paint rather than use the paint specified in the project that required specific single-source U.S. supplier. The color chips were virtually the same as the U.S. supplier. No one checked the Material Safety Data Sheets (MSDS) for the chemical content of the paint. The paint substitution allowed competitive bidding by local sources in Brazil, which saved \$5,000 on the total cost of paint for each machine, and the Brazilian supplier delivered to the site free. He also had used the local source in the past with good results.

#### **Bakersfield Plant Project Change Request Form**

Consequence: After equipment assembly had begun at the Bakersfield site, plant personnel conducted their regular testing of paint for hazardous materials. The testing revealed that orange paint used on all large moving parts had excessive amounts of lead in violation of OSHA standards. HTMI had to disassemble the equipment and ship the components to another site for lead abatement. The abatement involved removing commercial components such as bearings, sleeves and joints, sand blasting of components to remove the lead paint, repainting, and reassembly of commercial components. It cost HTMI over \$1,000,000 dollars and added four weeks to the installation.



## **Change Control Implementation Worksheet B – Team 2**

### **Specification Change**

Art Rost is the GMI Buyer responsible for machinery and equipment. One of his department objectives, and an element of his annual appraisal, is the amount of money saved through negotiations with the initial supplier versus their original quoted price. He was frustrated with the HTMI equipment purchase since the unique nature of the equipment did not leave much room for negotiating and leveraging other bidders. One of the specification requirements was to provide all training and support for ramp-up of the equipment, which HTMI had bid at \$50,000. Art considered this excessive and in the final negotiations asked HTMI to remove it from their quote. HTMI quickly agreed to remove the item and signed a joint letter indicating the change, which became an attachment to the purchase order. Art showed a \$50,000 savings

#### **Bakersfield Plant Project Change Request Form**

Consequence: Due to the proprietary nature of the equipment, the Purchasing Department at the Bakersfield Plant single-sourced development of training materials and train-the-trainer instructors to HTMI. During ramp-up they paid standard hourly service rates for all support personnel required from HTMI. The cost to GMI exceeded \$250,000. In their quote, HTMI had originally planned to absorb the training as part of their new product development and their equipment estimates always had an allowance for start-up support. The \$50,000 they submitted was only the extra support required for the new design.

## **Change Control Implementation Worksheet C – Team 3**

### **Equipment Layout Change**

Dave Bakus is the new Production Manager promoted from Facility Engineer by GMI for the Bakersfield Plant. He appears on the GMI organization chart in Chapter 8 as the Facility Engineer, since GMI did not promote him until after the plant construction began. During start-up he observed that his equipment operators and maintenance personnel had to go to the other side of the equipment for lock-out during tool changes, adjustments, or repairs. This required approximately 30 seconds of travel each way and over the course of a shift represented 10 to 20 minutes of downtime. More importantly, the added travel time was a deterrent to employees using the lock-out device as required.

#### **Bakersfield Plant Project Change Request Form**

Consequence: Involving Joe or other users of the equipment with the initial design might have identified the issue early, and the resulting change request showing the lock-out in the proper location would incur little or no cost. However, a change request at this point will incur an expense of \$10,000 per machine to either relocate the existing lock-out or add an auxiliary lock out device.

<b>Project Management Plan Components &amp; Documents Listing</b>			
<b>Project Management Plan Component</b>		<b>Project Document</b>	
A	Scope Management Plan	8	Duration Estimates
B	Requirements Management Plan	9	Issue Log
C	Schedule Management Plan	10	Lessons Learned Register
D	Cost Management Plan	11	Milestone list
E	Quality Management Plan	12	Physical resource Assignments
F	Resource Management Plan	13	Project Calendars
G	Communications Management Plan	14	Project Communications
H	Risk Management Plan	15	Project Schedule
I	Procurement Management Plan	16	Project Schedule Network Diagram
J	Stakeholder Engagement Plan	17	Project Scope Statement
K	Change Management Plan	18	Project Team Assignments
L	Configuration Management Plan	19	Quality Control Measurements
M	Scope Baseline	20	Quality Metrics
N	Schedule Baseline	21	Quality Report
O	Cost Baseline	22	Requirements Documentation
P	Performance Measurement Baseline	23	Requirements Traceability Matrix
Q	Project life Cycle Description	24	Resource Breakdown Structure
R	Development Approach	25	Resource Calendars
<b>Project Document</b>		26	Resource Requirements
1	Activity Attributes	27	Risk Register
2	Activity list	28	Risk Report
3	Assumption Log	29	Schedule Data
4	Basis of Estimates	30	Schedule Forecasts
5	Change Log	31	Stakeholder Register
6	Cost Estimates	32	Team Charter
7	Cost Forecasts	33	Test and Evaluation Documents

PMBOK® Guide, 2017, p. 89

<b>Impacted Components &amp; Documents Worksheet</b>	
<b>Material Substitution Team 1</b>	
PM Plan Components	Project Documents
<b>Specification Change Team 2</b>	
PM Plan Components	Project Documents
<b>Equipment Layout Change Team 3</b>	
PM Plan Components	Project Documents



### 5.6.1 Quality Benefits Worksheet

- What are the benefits of having an effective quality process?

- What value does a company get from a strong quality reputation?

- What causes project managers to make poor quality decisions?



5.6.2 Quality Metrics Worksheets

**Quality Metrics Worksheet Part A**

Team 1 - Cost Metrics, Tools, & Techniques	
Metric	Tool/Techniques

Team 2 - Time Metrics, Tools, & Techniques	
Metric	Tool/Techniques

Team 3 - Scope Metrics, Tools, & Techniques	
Metric	Tool/Techniques

### Quality Metrics Worksheet Part B

<b>Team 1 Human Resources Metrics, Tools, &amp; Techniques</b>	
<b>Metric</b>	<b>Tools/Techniques</b>

<b>Team 2 - Communications Metrics, Tools, &amp; Techniques</b>	
<b>Metric</b>	<b>Tools /Techniques</b>

<b>Team 3 - Problem Resolution Metrics, Tools, &amp; Techniques</b>	
<b>Metric</b>	<b>Tools /Techniques</b>



**5.6.3 Project Deliverables Validation Worksheet**

Team 1 - BCI	
Item #	Facility Deliverables Validation

Team 2 - HTMI	
Item #	Manufacturing Process Deliverables Validation

Team 3 - GMI	
Item #	Production and Delivery of Gadgets Deliverables Validation



### 5.6.4 Project Quality Situations Worksheet

#### Situation A - Software Testing - Team 1

- Decision Authority: \_\_\_\_\_
- Decision: \_\_\_\_\_
- Supporting Philosophy: \_\_\_\_\_
- Bullet Points supporting the decision

#### Situation B – Training – Team 2

- Decision Authority: \_\_\_\_\_
- Decision: \_\_\_\_\_
- Supporting Philosophy: \_\_\_\_\_
- Bullet Points supporting the decision

#### Situation C - Equipment Buy off at Supplier – Team 3

- Decision Authority: \_\_\_\_\_
- Decision: \_\_\_\_\_
- Supporting Philosophy: \_\_\_\_\_
- Bullet Points supporting the decision





### 5.7.1 Conflict Reduction Worksheet

**Responsibilities - Conflict Reduction Tools and Techniques**

**Cost - Conflict Reduction Tools and Techniques**

**Schedule - Conflict Reduction Tools and Techniques**



### 5.7.2 Personality Conflict Worksheet

- **TEAM 1 - Put yourself in Diane's position as project manager. How would you resolve the conflict you have with John Willy?**

- **TEAM 2 - Put yourself in John's position responsible for the new process performance. What would you do to resolve your conflict with Diane Baldwin?**

- **TEAM 3 - As the CEO of GMI, what actions would you take to minimize the conflict between Diane and John?**



**5.7.3 Project Scorecard Worksheet Team \_\_\_\_**

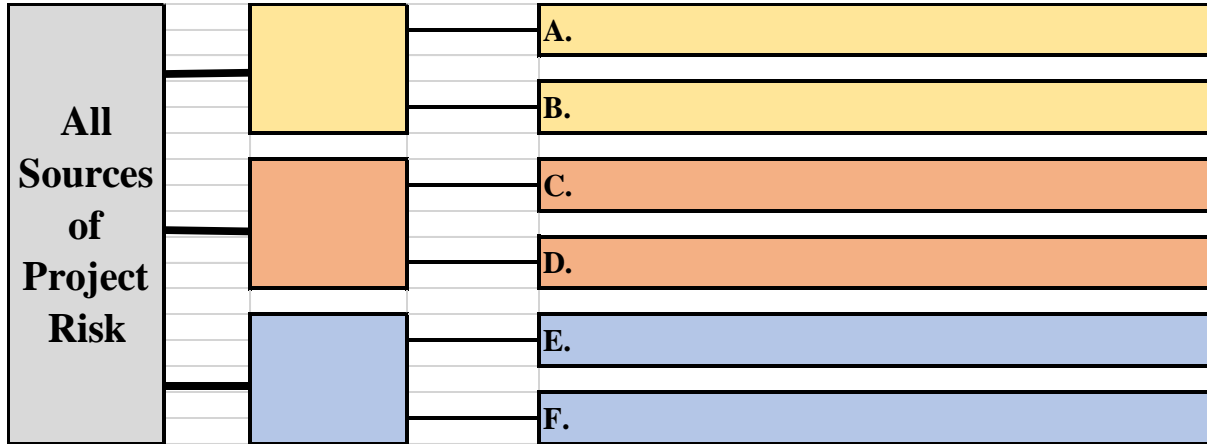
<b>Metrics, Status, Goals</b>	<b>Weekly and Cumulative Data</b>			

<b>Analysis and Corrective Actions</b>

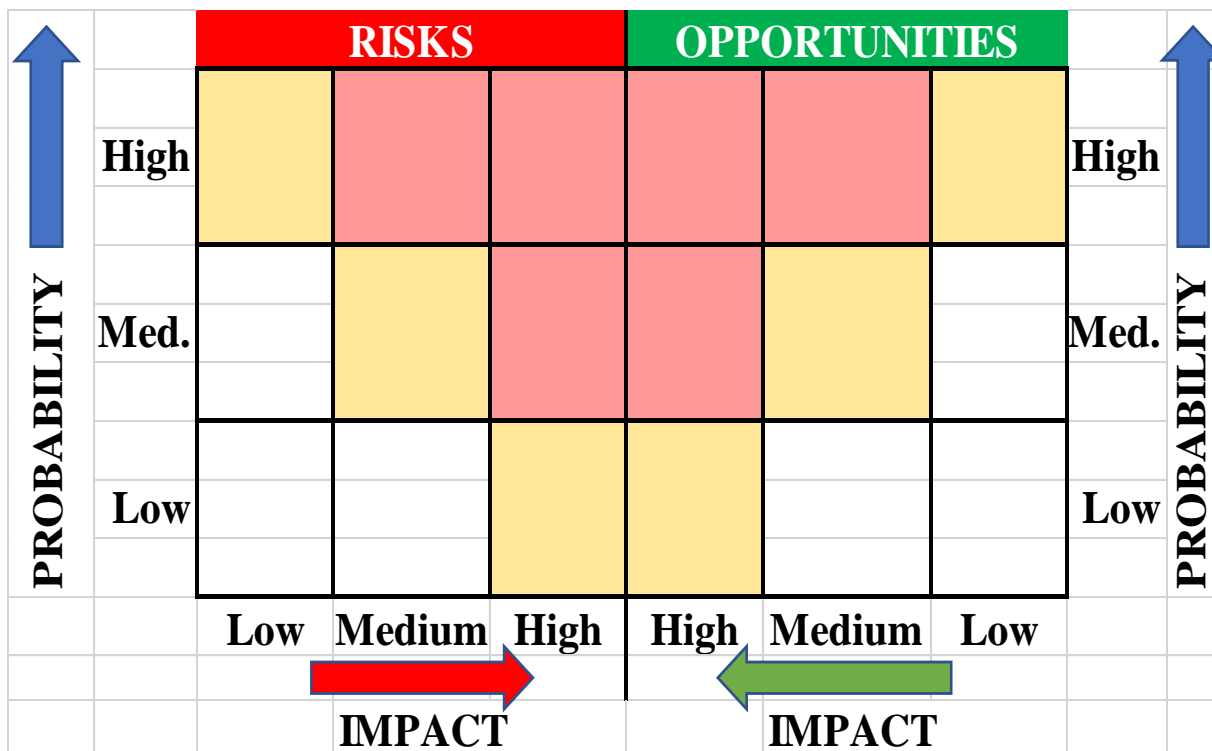


5.8.1 Risk Identification and Assessment Worksheet Team \_\_\_\_

**Risk Breakdown Structure (RBS)**



**Risk Probability and Impact Matrix (P/I Matrix)**





5.8.2 Risk Register Worksheet Team \_\_\_\_

Risk Response Strategy Table							
Label	Risk Description	Escalate	Avoid	Accept	Transfer	Mitigate	Share
A							
B							
C							
D							
E							
F							

RISK REGISTER						
Identification		Assessment		Response Plan		
Risk	Consequence	Prob. (L, M, H)	Impact (L, M, H)	Action Trigger	Resp.	Response Plan



### 5.8.3 Risk Management Worksheet









- What is your experience with formal or informal risk identification and contingency planning?

- How and when do you manage risk on a project?

- What value does risk management add to the project plan and what affect does it have on results?

# 6 Complete Worksheets

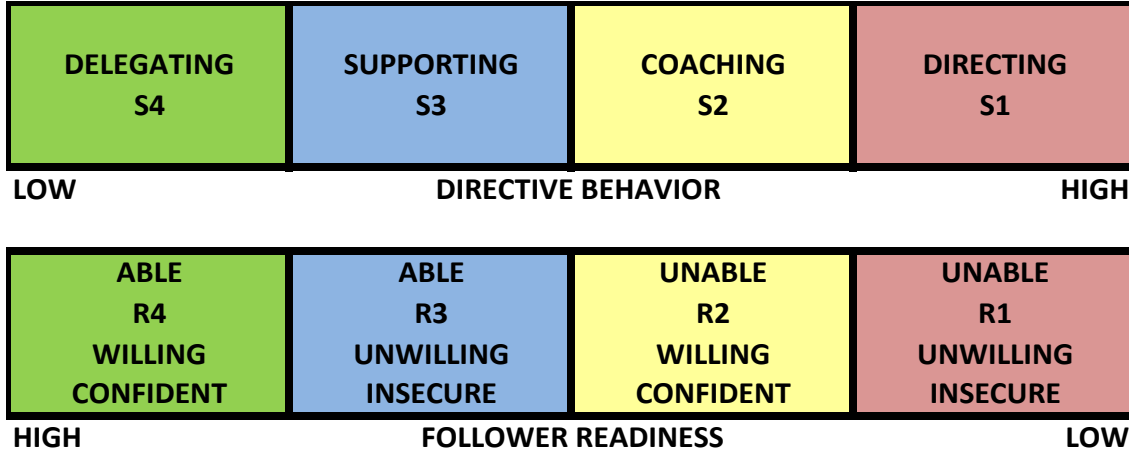
Chapter 6 consists of eight exercises: 2 Roundtable, 4 Team, 2 Simulations

<u>TYPE</u>	<u>EXERCISE WORKSHEETS</u>	<u>PAGE</u>
	6.1.1 Leadership Situations	112
	6.1.2 Leadership Structures	113
	6.2.1 Decision Making	114
	6.3.1 Project Manager Role	115
	6.3.2 Character Traits	116
	6.3.3 Project Balance	117
	6.4.1 Checklists	120
	6.4.2 Visual Control Board	121



### 6.1.1 Leadership Situations Worksheet

#### Situational Leadership® Model



(Hersey, Blanchard, Johnson 2008 p. 149)

For each situation identify leadership style, readiness, and expected level of success.

**Situation A Team 1**

**Situation B Team 2**

**Situation C Team 3**





### 6.1.2 Leadership Structures Worksheet

- **Based on your experience with a group led by a supervisor: Describe experience, method of leader appointment, level of self-leadership**

- **Based on your experience with a group led by a co-performer: Describe experience, method of leader appointment, level of self-leadership**

- **Based on your experience with a group led by an outside facilitator: Describe experience, method of leader appointment, level of self-leadership**



**6.2.1 Decision Making Worksheet**

Situation	Best Approach	Logic
A Team 1		
B Team 2		
C Team 3		
Situation	Worst Approach	Logic
A Team 1		
B Team 2		
C Team 3		



### 6.3.1 Project Manager Roles Worksheet

- **Why do Project Manager's require skills in leadership, business, and strategic planning?**

- **Name the top three qualities you would look for when hiring a project manager?  
Explain your selection**

- **What issues should be considered when promoting an outstanding engineer to project manager?**



6.3.2 Character Traits Worksheet Team \_\_\_\_

Postive Character Trait	Trait Priority	Class Member	Action Exemplifying Positive Trait
Organizer			
Expert			
Recorder			
Analyst			
Time Keeper			
Achiever			
Inquirer			
Peacemaker			
Negative Trait	Offsetting Trait	Explanation	
Riddler Team 1			
Critic Team 1			
Filibuster Team 2			
Hermit Team 2			
Procrastinator Team 3			
Gladiator Team 3			



### 6.3.3 Project Balance Worksheets

#### Project Balance Team 1 Worksheet

- **Approving a Change Request**

- **Developing an initial schedule**

- **Resolving a personality conflict**

**Project Balance Team 2 Worksheet**

- **Assigning a task to a team**

- **Approving a vacation request**

- **Authorizing overtime**

**Project Balance Team 3 Worksheet**

- **Developing the project estimate**

- **Problem solving a technical issue**

- **Selecting a new supplier for project materials**



### 6.4.1 Checklists Worksheet Team \_\_\_\_

#### Preparatory Checklist for First Class

Course Number: \_\_\_\_\_

Start Date: \_\_\_\_\_

Course Title: \_\_\_\_\_

■ **Course sign up**

■ **Books, equipment and materials**

■ **Personal adjustments**

■ **Work in preparation for class**

■ **Other ideas**





## 6.4.2 Visual Control Boards Worksheet

■ Overall Course Information - Team 1

■ Contact Information - Team 2

■ Course Schedule - Team 3










■ Course Progress - Team 3

■ Course Issues and Other Ideas - All Teams



# 7 Close Worksheets

Chapter 7 consists of nine exercises: 3 Roundtable, 1 Class, 4 Team, 1 Simulation

<u>TYPE</u>	<u>EXERCISE WORKSHEET</u>	<u>PAGE</u>
	7.1.1 Project Closure	124
	7.1.2 Project to User Linkage	125
	7.1.3 Project Evaluation Form	126
	7.1.4 Future Opportunities	127
	7.2.1 Lessons Learned Integration	128
	7.3.1 Ethics Importance and Support	129
	7.3.2 Bribes	130
	7.3.3 Ethics	131
	7.4.1 PMP Application Experience Section	132



### 7.1.1 Project Closure Worksheet

When answering the following questions, think of this course as a project with each week being a phase in the project.

■ **When should lessons learned be identified?**

■ **How should we close out the course?**

❖ **What steps are needed?**

❖ **How is satisfaction measured?**

❖ **How do we celebrate?**



### 7.1.2 Project to User Linkage Worksheet

- **What are the benefits for HTMI when the GMI Manufacturing Department is heavily involved with the equipment installation?**

- **What are some obstacles to securing GMI Manufacturing Department's involvement in the equipment installation?**

- **What are the benefits for GMI when their manufacturing personnel are involved in the installation of the HTMI equipment?**



**7.1.3 Project Evaluation Form Worksheet Team \_\_\_\_\_**

**Project Title:** \_\_\_\_\_

**Project Results**

<u>Goals/Deliverables</u>	<u>Rating System</u>

**Process**

<u>Parameters</u>	<u>Rating System</u>

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Recommendations: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**7.1.4 Future Opportunities Worksheet**

<b>Collaboration Opportunities for Other Interactions Over Product Life Span</b>		
Team 1 - GMI and BCI	Team 2 - GMI and HTMI	Team 3 - HTMI and BCI

<b>Leverage Relationships in Other Projects</b>		
Team 1 - GMI and BCI	Team 2 - GMI and HTMI	Team 3 - HTMI and BCI

<b>Estimated \$ Value of Joint Business Relationships</b>		
Team 1 - GMI and BCI	Team 2 - GMI and HTMI	Team 3 - HTMI and BCI



**7.2.1 Lessons Learned Integration Worksheet Team \_\_\_\_**

List the data sheet (created by your class) lessons learned by number on the category map.

Provide detailed descriptions of the student lessons learned.

**Category Map**

Project Management Online Course Categorized Lessons Learned			
Course Content	Course Pace	Requirements	WebEx Facilitation
Student Input			

**Top 5 Lessons Learned**

---

---

---

---

---

---

---

---

---

---

---





### 7.3.1 Ethics Importance and Support Worksheet

- **Team 1 - Why are ethics more important for project managers than typical middle managers?**

- **Team 2 - What steps can companies take to support ethical behavior?**

- **Team 3 - What steps can PM's take to support ethical behavior?**



### 7.3.2 Bribes Worksheet

■ **How prevalent are bribes aimed at Project Managers?**

■ **Do all bribes look alike?**

■ **What about free lunch, sports tickets, or gifts at holiday time?**



### 7.3.3 Ethics Worksheet

- **Team 1 – HTMI develops a new testing procedure.**

- **Team 2 - Diane is approached by her uncle during Thanksgiving**

- **Team 3 - Diane has holiday issue with German nationals in U.S.**



7.4.1 PMP Application – Experience Worksheet Team \_\_\_\_

Student Experience Spreadsheet Summary						
Project Name	Start	Through	Duration		Total Hours	Hours/week
			Months	Weeks		
				<b>Total</b>		

**Student’s Project Experience Submission for PMP Certification**

Lists the overview info and details for each project, but leave out the organization details to preserve anonymity. Note: Project descriptions must be 550 words or less.

**OVERVIEW - Project Title:** \_\_\_\_\_

**Started:** \_\_\_\_\_

**Through:** \_\_\_\_\_

**Project Role:** \_\_\_\_\_

**Primary Industry:** \_\_\_\_\_

**PROJECT DETAILS - Project Title:** \_\_\_\_\_

**Initiating**  
 \_\_\_\_\_

**Planning**  
 \_\_\_\_\_

**Executing**  
 \_\_\_\_\_

**Controlling & Monitoring**  
 \_\_\_\_\_

**Closing**  
 \_\_\_\_\_

**Description**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---









---

---

# 9

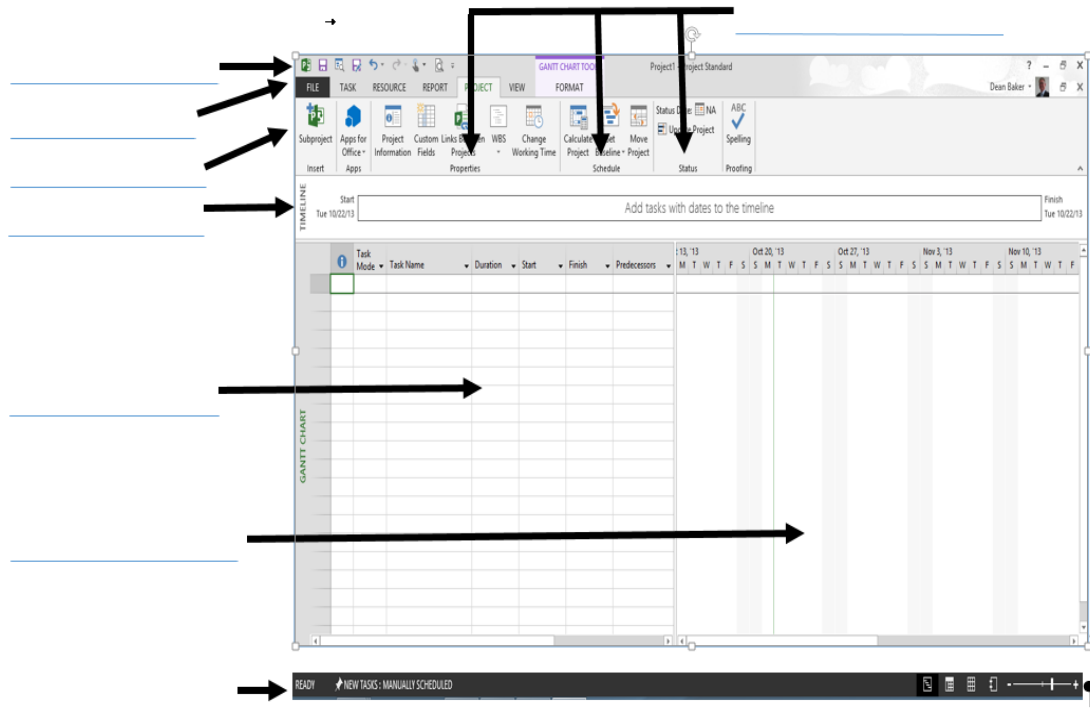
# Microsoft Project Basics Worksheets

Chapter 7 consists of eight computer exercises

<u>TYPE</u>	<u>EXERCISE WORKSHEET</u>	<u>PAGE</u>
	9.1.1 Getting to Know MS Project	134
	9.2.1 Work Breakdown Structure	135
	9.3.1 Networks in MS Project	137
	9.4.1 Durations in MS Project	138
	9.5.1 Resources in MS Project	139
	9.6.1 Leveling in MS Project	140
	9.7.1 Budgets in MS Project	141
	9.8.1 Critical Path in MS Project	142



**9.1.1 Getting to Know MS Project Worksheet Team \_\_\_\_**  
**[Alt. Exercise 4.2.3]**



MSP Ribbons		
Tab Name	Ribbon Y or N	# Groups in Ribbon
File		
Task		
Resource		
Report		
Project		
View		
Format		

MSP Functions			
Function	Tab	Ribbon Group	Name/Icon/Drop Down Menu
Insert task			
Save as			
Link Tasks			
Indent			
WBS Numbering			
Level Resources			
View Network			
Hide Summary Tasks			
Project Overview Report			
Assign Resources			
Set Baseline			



**9.2.1 Work Breakdown Structures in MS Project Worksheets**  
[Alt. Exercise 4.2.4]

**Part A Work Breakdown Structure Worksheet Team \_\_\_\_\_**

**Part A – Kitchen Replacement Project**

Project Phase:		
Work Breakdown Structure		
Task ID	WBS	Task Name

Number of Levels in the Project: \_\_\_\_\_

Number of Items in Level One: \_\_\_\_\_

Number of Tasks in the Project Phase: \_\_\_\_\_

**Part B Work Breakdown Structure Worksheet**

**Part B Commercial Construction Template**

<b>Commercial Construction Template WBS Info</b>					
<b>Commercial Construction Template Items from MS Project</b>	<b>Assigned Team</b>	<b>ID</b>	<b>WBS</b>	<b>Level</b>	<b>Task or Summary</b>
Submit bond and insurance documents	1				
Obtain building permits	2				
Long Lead Procurement	3				
Detail, fabricate and deliver steel	1				
Mobilize on Site	2				
Install temporary power	3				
Set up site office	1				
Clear and grub site	2				
Rough grade site (cut and fill)	3				
Foundations	1				
Excavate elevator pit	2				
Set reinforcing and anchor bolts	3				
Strip wall forms	1				
Steel Erection	2				
Form and Pour Concrete - Floors and Roof	3				
Carpentry Work	1				
Masonry Work	2				
Roofing	3				

In the Commercial Construction Template record the total number of:

Items: \_\_\_\_\_

Tasks: \_\_\_\_\_

Summary Tasks: \_\_\_\_\_

Template Levels: \_\_\_\_\_





**9.3.1 Networks in MS Project Worksheet Team \_\_\_\_**  
**[Alt. Exercise 4.3.4]**

**Network Worksheet Team \_\_\_\_**

Project Phase:				
Comparison of Network to WBS Exercise Durations				
Task ID	Task Name	Predecessor Tasks IDs	Duration	
			Network Exercise	WBS Exercise

Duration of the project in the Network exercise: \_\_\_\_\_

Duration of the project in the WBS exercise: \_\_\_\_\_

Duration of each task in the Network exercise: \_\_\_\_\_

Duration of each task in the WBS exercise: \_\_\_\_\_



**9.4.1 Durations in MS Project Worksheet**  
 [Alt. Exercise 4.4.5]

<b>Durations Matrix</b>			
<b>Project Phase</b>	<b>Days to Complete</b>	<b>Start Date</b>	<b>Finish Date</b>
<b>Design/Procure</b>			
<b>Tear Out &amp; Prep</b>			
<b>Install</b>			
<b>Close</b>			
<b>Total Days all Phases</b>			
<b>Total Project Work Days</b>			
<b>Milestone</b>		<b>Date</b>	
<b>Start</b>			
<b>Permits Complete</b>			
<b>Material Delivery Complete</b>			
<b>Paint Prep Complete</b>			
<b>Paint Trim/Touch Up Complete</b>			
<b>Finish</b>			
<b>Total Calendar Days Start to Finish</b>			



**9.5.1 Resources in MS Project Worksheet**  
 [Alt. Exercise 4.5.3]

<b>Over-allocated Tasks and Resources</b>					
<b>Design Procure</b>		<b>Tear Out Prep</b>		<b>Install</b>	
<b>Over-allocated Resource</b>	<b>Over-allocated Task ID code</b>	<b>Over-allocated Resource</b>	<b>Over-allocated Task ID code</b>	<b>Over-allocated Resource</b>	<b>Over-allocated Task ID code</b>

<b>Resource Over-allocation Occurrences</b>					
<b>Design Procure</b>		<b>Tear Out Prep</b>		<b>Install</b>	
<b>Resource</b>	<b>Date</b>	<b>Resource</b>	<b>Date</b>	<b>Resource</b>	<b>Date</b>
<b>Total Occur.</b>		<b>Total Occur.</b>		<b>Total Occur.</b>	



**9.6.1 Leveling in MS Project Worksheet**  
 [Alt. Exercise 4.5.4]

<b>Over-allocation with Leveling</b>					
<b>Project Phase</b>	<b>Exercise Case</b>	<b>Over-allocated</b>	<b>Over-allocated</b>	<b>Phase</b>	<b>Completion</b>
		<b>Resources</b>	<b>Tasks</b>	<b>Duration</b>	<b>Date</b>
<b>Design Procure</b>	Original				
	After Leveling				
	After Smoothing				
<b>Tear Out Prep</b>	Original				
	After Leveling				
	After Smoothing				
<b>Install</b>	Original				
	After Leveling				
	After Smoothing				



**9.7.1 Budgets in MS Project Worksheet**  
 [Alt. Exercise 4.6.3]

<b>Variable Cost Matrix</b>			
<b>Resource</b>	<b>Design Procure</b>	<b>Tear Out Prep</b>	<b>Install</b>
<b>CI</b>			
<b>CP</b>			
<b>DE</b>			
<b>EL</b>			
<b>LO</b>			
<b>PB</b>			
<b>PM</b>			
<b>SP</b>			
<b>TI</b>			
<b>Variable Total</b>			

<b>Fixed Cost Matrix</b>			
<b>Item</b>	<b>Design Procure</b>	<b>Tear Out Prep</b>	<b>Install</b>
<b>CC</b>			
<b>DR</b>			
<b>DW</b>			
<b>EF</b>			
<b>FE</b>			
<b>FT</b>			
<b>MW</b>			
<b>PS</b>			
<b>RE</b>			
<b>RP</b>			
<b>SD</b>			
<b>ST</b>			
<b>TB</b>			
<b>Fixed Total</b>			

<b>Total Project Budget</b>			
<b>Cost Type</b>	<b>Design Procure</b>	<b>Tear Out Prep</b>	<b>Install</b>
<b>Variable</b>			
<b>Fixed</b>			
<b>Total</b>			
<b>Total All Phases</b>			



**9.8.1 Critical Path in MS Project Worksheet**  
 [Alt. Exercise 5.2.4]

<b>Team 1 - Design Procure Critical Path Analysis</b>	
<b>Critical Tasks Before Leveling</b>	<b>Critical Tasks After Leveling</b>
<b>Total Critical Tasks =</b>	<b>Total Critical Tasks =</b>

<b>Team 2 - Tear Out and Prep Critical Path Analysis</b>	
<b>Critical Tasks Before Leveling</b>	<b>Critical Tasks After Leveling</b>
<b>Total Critical Tasks =</b>	<b>Total Critical Tasks =</b>

<b>Team 3 - Install Procure Critical Path Analysis</b>	
<b>Critical Tasks Before Leveling</b>	<b>Critical Tasks After Leveling</b>
<b>Total Critical Tasks =</b>	<b>Total Critical Tasks =</b>

# **10** Bakersfield Term Project Templates

The Bakersfield Term Project consists of 6 templates. The first four are provided within this file. The last two are the budget template from Part II and project status templates from Part III which are generated from the Microsoft Project program with the values automatically entered. Students simply print out the spreadsheet portion of the schedule with the appropriate headings for the budget template and select appropriate template reports for the status report templates.

<b><u>TYPE</u></b>	<b><u>PROJECT TEMPLATES</u></b>	<b><u>PAGE</u></b>
Term Project	Part I Project Charter	144
Term Project	Part I Communication Plan	146
Term Project	Part II Scope Statement	147
Term Project	Part II Risk Register . . . . .	148

**Project Charter Template Page 1**

**Project Name:** \_\_\_\_\_

**Start Date:** \_\_\_\_\_

**Target End Date:** \_\_\_\_\_

**Leadership Team Core Participants**

Participating Co.	Sponsor/Job Title	Project Manager

**Additional Leadership Team Participants**

Company	Participant	Job Title

**Tentative Project Team Structure**





**Project Charter Template Page 2**

**Project Name:** \_\_\_\_\_

**Mission**

**Goals**

**Scope**

**Summary  
Milestone  
Schedule**

(Note to Students: Refer to the initial schedule Gantt developed in Part I to identify key milestones for this part of the Project Charter)

**Summary  
Budget**

**User Acceptance  
Criteria/Quality**

**Major  
Risks**

**APPROVALS**

Company/Sponsor	Approval Signature	Date

**Communication Plan Template**

VERBAL COMMUNICATION				
WHAT	WHEN	WHERE	OWNER	ATTENDEES
Type of Meeting	Frequency (Day/time)	Meeting Location	Meeting Owner	Project Team Members (it is good to identify them by role or title if possible)

WRITTEN COMMUNICATION				
WHAT	WHEN	METHOD OF DELIVERY	SENDER	RECEIVER
Type of Communication	Frequency Day (if applicable)	Electronic? Paper?	Person or Group responsible for sending	Person or Group who receives the information

**EXAMPLE OF A COMMUNICATION PLAN:**

The communication plan should be no more than one or two pages long and contain at least 10 entries. This document outlines the partial plan of communication for the XYZ Project Team as an example of how the charts are filled out. The charts on pages 88 through 91 of the text *Multi-company Project Management* should provide plenty of ideas.

VERBAL COMMUNICATION				
WHAT	WHEN	WHERE	OWNER	ATTENDEES
Status Meeting	Every 2 weeks Monday 10-noon	Project Site Work Trailer	Project Manager	XYZ Project Team
Called Meetings	As Needed	TBD	Person who calls & leads meeting	To Be Determined

WRITTEN COMMUNICATION				
WHAT	DUE WHEN	METHOD OF DELIVERY	SENDER	RECEIVER
Meeting Minutes	2 days after the meeting	Website	Note Taker	All participants
Meeting Agenda	2 days before a meeting	EMAIL	Meeting Facilitator	All meeting participants
Status Reports to Project Manager	Weekly Tuesday By noon	Paper Copy	Team Members	Project Manager

**Scope Statement Template**

**Statement of Work**

**Project Name:** \_\_\_\_\_

**Project Phase** \_\_\_\_\_

---

**Scope**

(Project  
Description in  
more detail)

---

**Acceptance  
Criteria**

(Greater Detail)

---

**Deliverables**

(Includes  
Ancillary Items)

---

**Exclusions**

(Items out of  
Scope)

---

**Constraints**

(Schedule,  
Cost, and  
Others)

---

**Assumptions**

(Include impact  
if false)

---

**Risk Management Matrix Template**

Identification		Assessment		Response Plan		
Risk	Consequence	Probability (L, M, H)	Severity (L, M, H)	Action Trigger	Resp.	Response Plan