The Mighty Mathematician

NEW FORMAT

Updated Questions
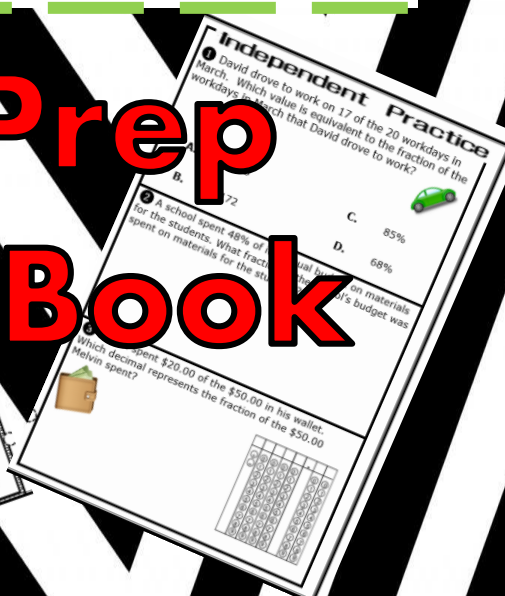
16-20 Practice Opportunities

POWER-TEK Edition

Readiness Review

Series 1

All Readiness Objectives

- "I Do" Questions
- "We Do" Questions
- "You Do" Questions
- Partner Practice
- Skill Builders
- Vocabulary
- Notes & Workspace

STAAR Prep DELUXE Book

Notes | Vocabulary | Practice

From The Mighty Mathematician,

Welcome and thank you for your purchase of materials from THE MIGHTY MATHEMATICIAN. Please be sure to rate your purchase and if you have any questions/comments/request please feel free to contact me on Teachers Pay Teachers.

The Product Purchase:

### The "Power" TEKS – DELUXE Edition

The "Power" TEK Prep Book takes an opportunity to focus on STAAR Readiness TEKS for 6th Grade Math in Texas. This resource also has a blank pages for personal instruction. The Readiness Standards are 60-65% of the STAAR test. The questions are written in the style of the Readiness questions on previous STAAR tests. The "Power" TEKS - Edition Book can be used for the introduction, small groups, reteaching, intervention/tutorials, and homework. With additional questions, workspace, notes, and exit ticket. Thank you for purchasing the DELUXE Edition. Use pre-made notes and vocabulary or provided templates to customize your teaching. Excellent pair with Supporting Do Nows, also available.

Contents: All STAAR Focused

- 2-3 "I Do" Questions
- Vocabulary
- Notes/Review
- 3 "We Do" Questions
- 4 "Do Together" Partner Questions
- 4 "You Do" Questions
- 2 Exit Tickets
- Objective Recap Area
- More workspace, more questions, more types of questions, and more!

Readiness Review
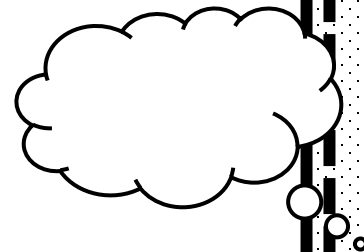
All Readiness Objectives
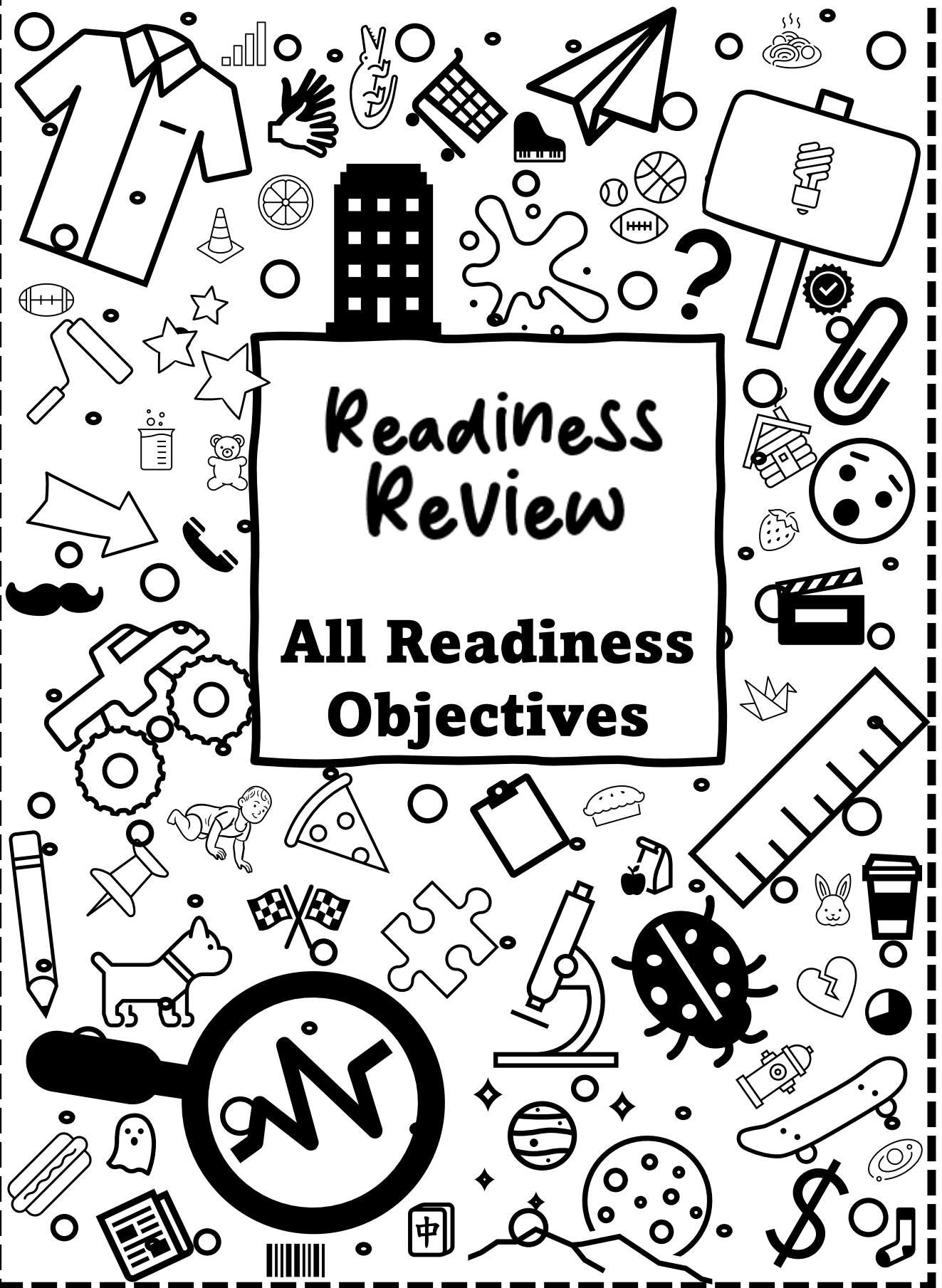
Objective :

Teacher Notes

2

Brain Dump

EXAMPLE

① $9 \div \frac{3}{4}$

② $s - 39 > 12$
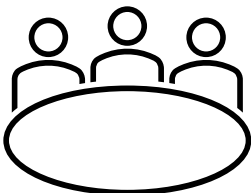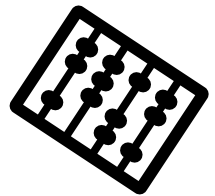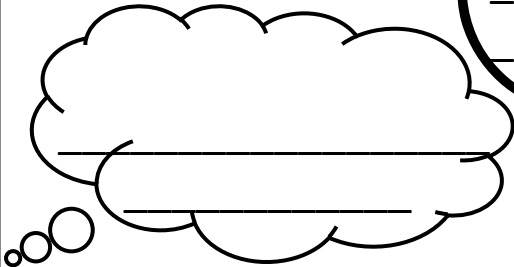
⟵⟶
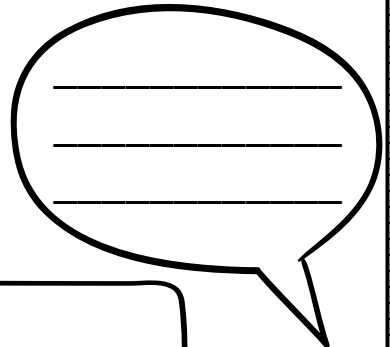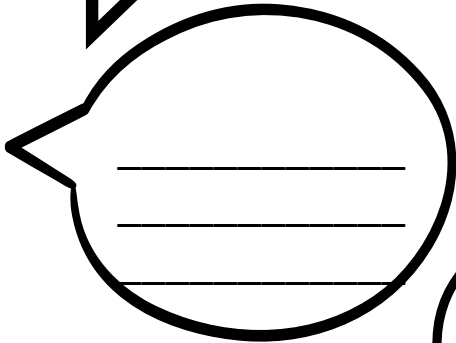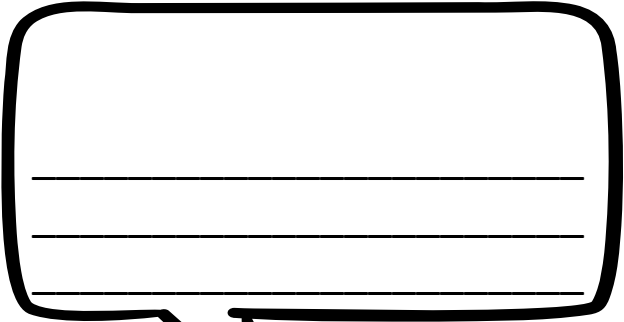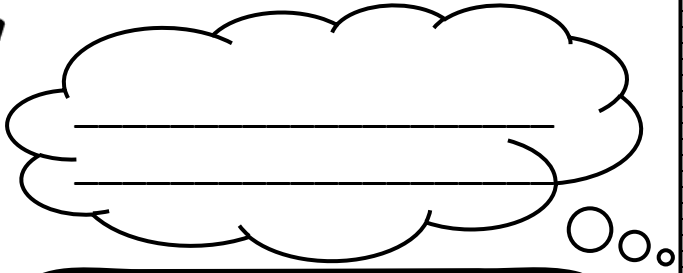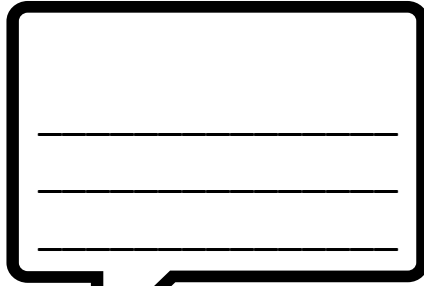
③ $\$3.78 \cdot 34$

④

Fraction	Decimal	Percent
		65%

3

Vocabulary

1) To build a positive credit history, I should pay cash.

TRUE   or   **FALSE**

2) Place the fractions in order from least to greatest.

$$\frac{3}{5} \qquad \frac{3}{8} \qquad \frac{2}{3} \qquad \frac{1}{4}$$

3) What is 75% of 80?

4) Label the quadrants below

A. (-3.2 , 2)
B. (4 , 6)
C. $(1\frac{1}{3}$, -5)

5) Model -7 + 4

SKILLS-N-DRILLS

6)

Purchase No.	Date	Transaction	Debit			Credit			Balance $178.30	
#102	7/18	Paycheck				732	64			
#103	7/22	Pam's Pantry	71	50						
#104	8/1	Rent	512	00						
#105	8/3	Refund				26	41			

After 8/3, what is Joy's balance in her account?
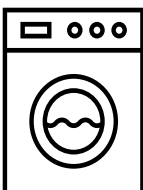
5

1 Emma is organizing a collection of numbers in ascending order. Which list could be the one Emma created? **(6.2D)**

A 0.63 45% $\frac{2}{5}$ 0.77 60% $\frac{7}{10}$

B 45% 60% 0.63 $\frac{2}{5}$ 0.77 $\frac{7}{10}$

C $\frac{2}{5}$ 45% 60% 0.63 $\frac{7}{10}$ 0.77

D 0.63 45% $\frac{2}{5}$ 0.77 $\frac{7}{10}$ 60%

2 Nia had $350 to spend. She returned a pair of shoes and received a $90 refund. She then bought a dress for $180.
How much money in dollars and cents did Nia have to spend after buying the dress? **(6.3D)**

3 Liam earns $9.80 for each hour of work as a tutor. How much will he earn for working 8.5 hours as a tutor? **(6.3E)**

F $75.50   **G** $83.30   **H** $90.25   **J** $97.62
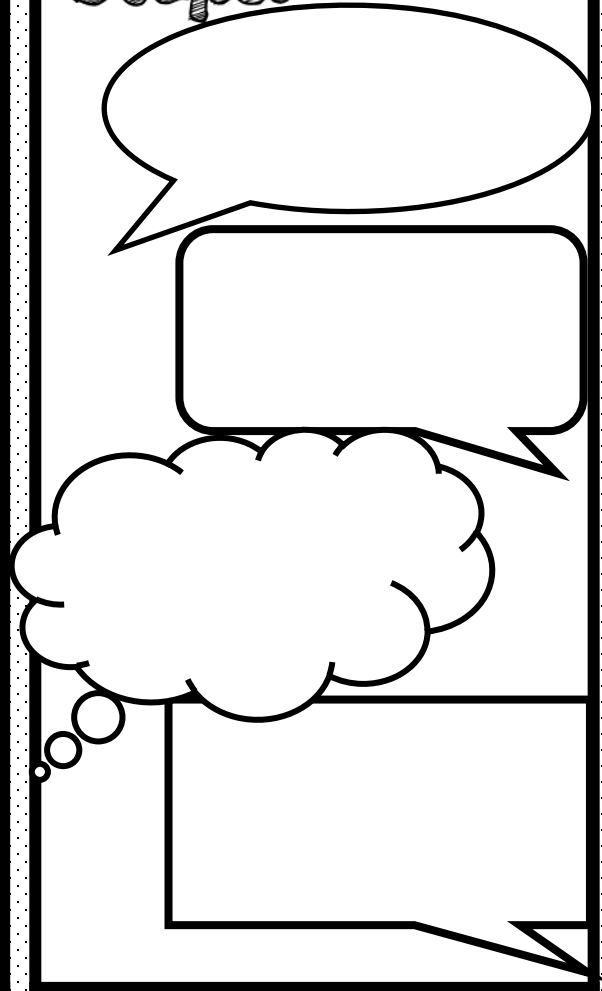
6

Workspace

Steps:

Who's Correct?

Determine who is correct. Explain your reasoning.

The annual salary of a police officer is $53,220. The annual salary of a flight attendant is $ 60,680. How much more would the flight attendant earn in 25 years compared to the police officer?

Amber $97,460

Chris $12,420

Amber $113,900

Donny $186,500

WRITTEN RESPONSE

4 Kevin and Jose are both running laps on a track.

- Kevin can run 9 laps in 6 minutes.
- Jose can run 5 laps in 2 minutes.

Based on these rates, which statement is TRUE? **(6.4B)**

A Kevin can run 10 laps in 7 minutes.

B Jose can run 6 laps in 3 minutes.

C Jose can run 2 lap farther than Kevin in 2 minutes.

D Kevin can run 1.5 laps farther than Jose in 4 minutes

5 Francisca spent $28.00 out of the $40.00 she had in her wallet. Which decimal represents the fraction of the $40.00 Francisca spent? **(6.4G)**

F   0.70   **G**   0.28

H   0.65   **J**   0.72

6 The length of a swimming pool is 53 feet 9 inches. What is the total length of the swimming pool in inches? **(6.4H)**

8

9

Use your know knowledge of equations and inequalities to get from start to finish.

Partner Work
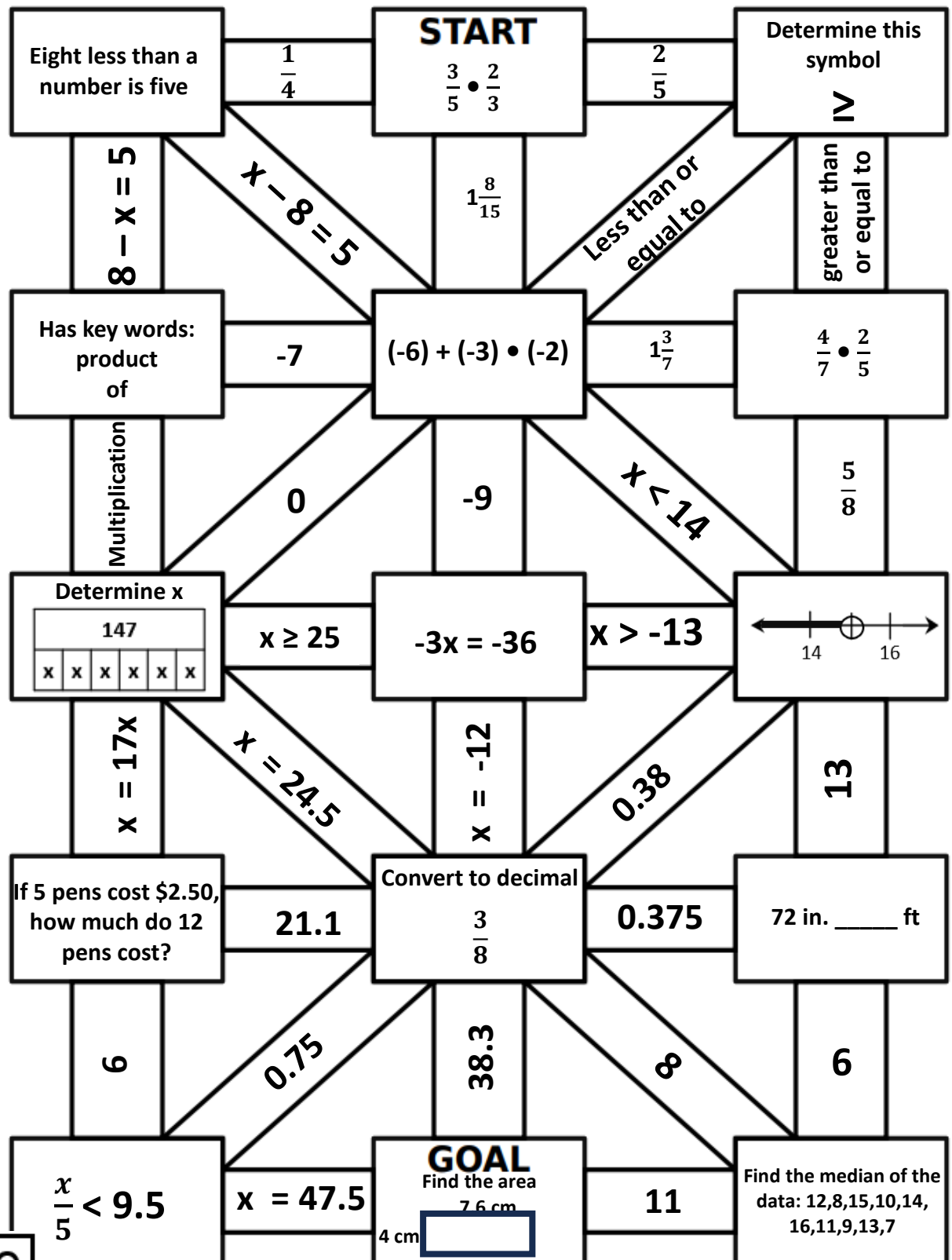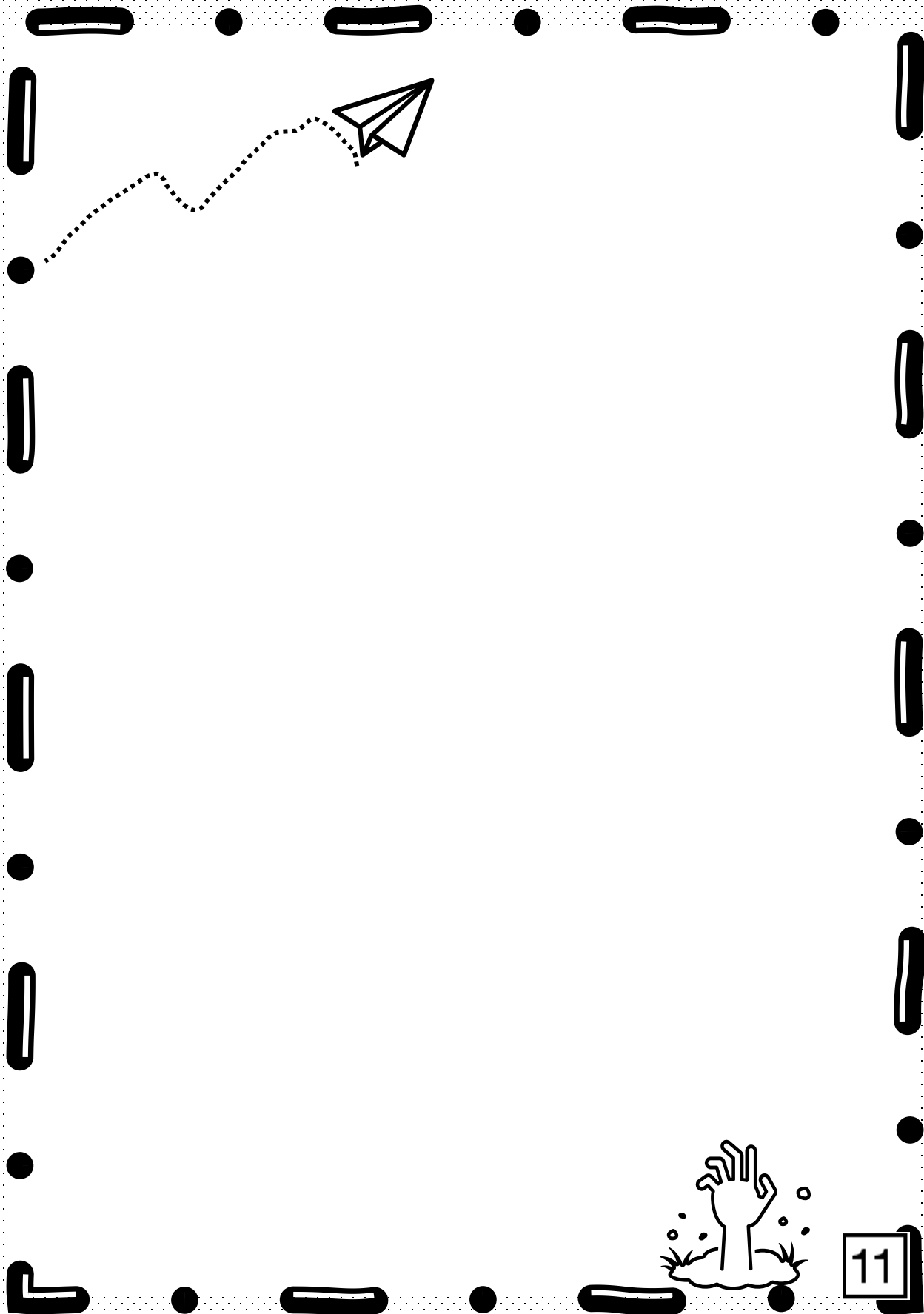
Eight less than a number is five

START

$\frac{3}{5} \bullet \frac{2}{3}$

Determine this symbol

≤

$\frac{1}{4}$

$\frac{2}{5}$

$8 - x = 5$

$x - 8 = 5$

$1\frac{8}{15}$

Less than or equal to

greater than or equal to

Has key words: product of

$(-6) + (-3) \bullet (-2)$

$1\frac{3}{7}$

$\frac{4}{7} \bullet \frac{2}{5}$

Multiplication

-7

0

-9

$x < 14$

$\frac{5}{8}$

Determine x

147					
x	x	x	x	x	x

$x \geq 25$

$-3x = -36$

$x > -13$

14   16

$x = 17x$

$x = 24.5$

$x = -12$

0.38

13

If 5 pens cost $2.50, how much do 12 pens cost?

Convert to decimal

$\frac{3}{8}$

72 in. _____ ft

21.1

0.375

6

0.75

38.3

8

6

$\frac{x}{5} < 9.5$

$x = 47.5$

GOAL

Find the area
7.6 cm

4 cm

11

Find the median of the data: 12,8,15,10,14, 16,11,9,13,7

10

7 During a 120-minute concert, a guitarist was on stage 75% of the time. What amount of time in minutes was the guitarist on stage? **(6.5B)**

8 Which expression is equivalent to $24 + 4^3$? **(6.7A)**

A $(24 + 4)^3$

B $3(24 + 4)$

C $(24 \cdot 3) + (4 \cdot 3)$

D $24 + 4 \cdot 3$

E None of these

9 Which expression is equivalent to $4 + (5 \cdot m)$? **(6.7D)**

F $(m \cdot 5) + 4$

G $(4 + 5) \cdot m$

H $4 (m \cdot 5)$

J $(5 + m) \cdot 4$

10 Ms. Green is building a garden that is shaped like a trapezoid. The dimensions of the garden are shown in the diagram. **(6.8D)**

8 ft

9 ft   7 ft   9 ft

22 ft
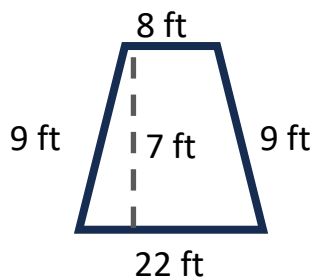
What is the area of the garden in square feet?

11 James works at Paula's Pantry. He worked one year and earned 45 hours of vacation. Which table best shows the relationships between m, month of work and v, hours of vacation? **(6.6C)**

A

Months of Work, m	Hours of Vacation, v
1	45
2	90
3	135
4	180

B

Months of Work, m	Hours of Vacation, v
3	12
4	24
5	36
6	48

C

Months of Work, m	Hours of Vacation, v
2	7.50
3	11.25
4	15
5	18.75

D

Months of Work, m	Hours of Vacation, v
3.75	1
7.50	2
11.25	3
18.75	4

12

⑫ Kevin wants to buy a new bicycle that costs at least $120. He decides to earn money by mowing lawns. If Kevin earns $10 for each lawn he mows, how many lawns would he need to mow to have enough money to buy the bicycle? **(6.10A)**

A x > 12   **C** x ≤ 12

B x ≥ 12   **D** x > 12

❸ James is buying jeans. Determine the median and range of the jeans. **(6.12 C)**

Median:

Range:

Jean Cost
Price
24
78
60
29
57

⑭ Ms. Mack asked her students the number of siblings they had, and the results are below.

Number of Siblings

What is the interquartile range of the data? **(6.12C)**

❺ Students were asked favorite color. Determine the relative frequency and complete the percentage graph? **(6.12D)**

Purple	Green	Red	Blue
6	3	12	9
%	%	%	%

⑯ The data below represents the scores of students in a math test:

Stem	Leaf
7	2 3 6 8
8	0 2 5 8
9	0 5

Which statement (s) are best supported by the data? **(6.13A)**

A The average score is greater than 80.

B There are more students with scores between 75 and 85 than with scores between 85 and 95.

C The range of scores is 23.

D The median is 80.

E More than 50% of the student scored an 88 or higher on the math test.

14
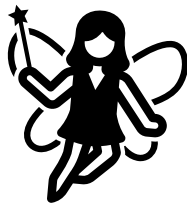
Workspace

17 Use the coordinate grid to answer the following questions. **(6.11A)**
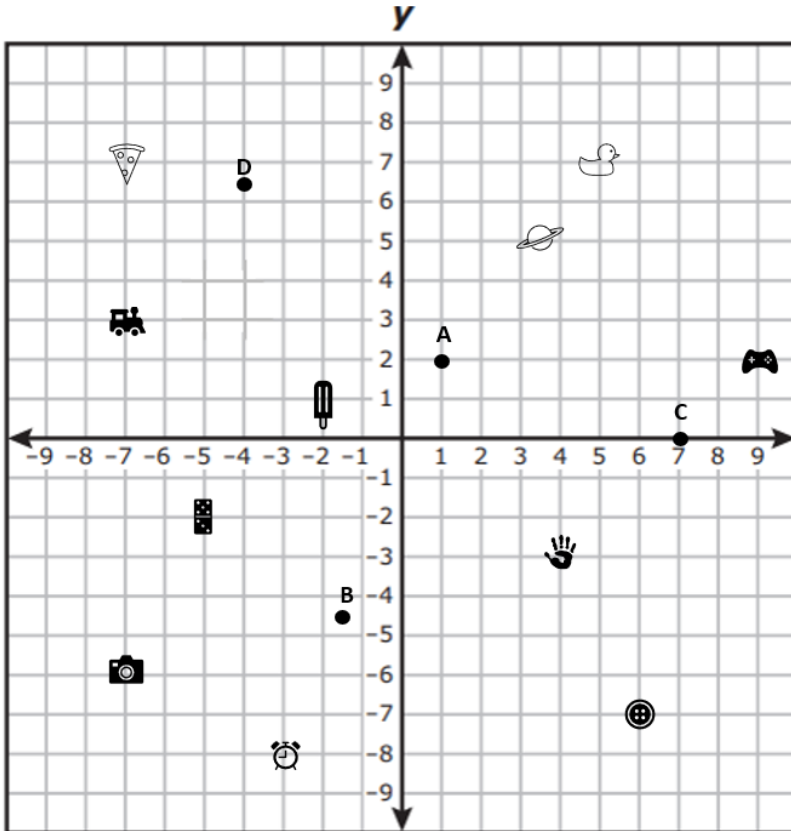
- Plot the following plots
  - E (-5 , -8.5)
  - F (0 , 6)
  - G (0 , 0)

- Locate the following ordered pairs
  - 🪐 : (,   )
  - ⊕ : (,   )
  - ⏰ : (,   )

- Determine the quadrant
  - (-2.4 , 2) _____
  - ($\frac{1}{4}$, $\frac{3}{4}$) _____
  - (📷) _____
  - (5 , -3.6) _____

Workspace

17
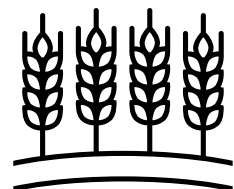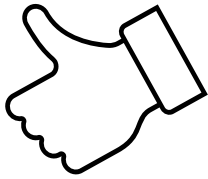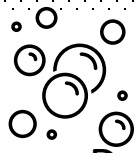
Review Recap
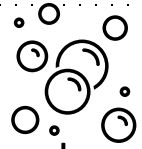
Draw and/or write key ideas to what you learned.

_____

_____

_____

_____

_____

_____

_____

NOTES
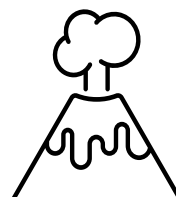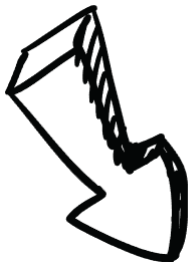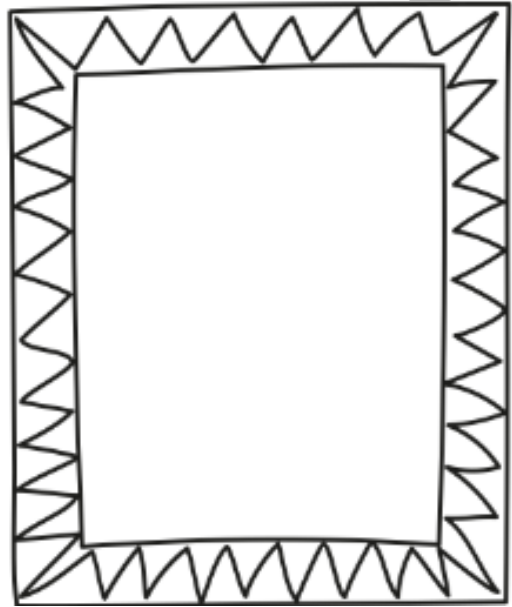
20

Locate the following equation and inequality terms in the word search:

O	U	E	Q	U	I	V	A	L	E	N	T	D	C
R	I	Q	U	A	D	R	A	N	T	R	A	T	E
U	F	T	T	E	I	R	R	T	I	L	I	V	E
F	A	R	A	N	G	E	O	D	D	G	A	L	Y
I	O	P	A	R	E	L	B	A	I	R	A	V	N
N	T	D	C	C	P	A	D	D	I	T	I	V	E
A	R	E	A	X	T	E	I	A	G	D	D	L	M
N	T	I	O	T	N	I	B	N	I	E	E	A	E
C	R	B	C	I	E	I	O	A	T	U	I	M	T
I	N	A	G	M	L	C	Y	N	T	E	N	I	R
A	C	I	U	I	M	E	D	I	A	N	G	C	I
L	R	L	T	T	R	I	A	N	G	L	E	C	
O	O	Y	U	T	N	E	C	R	E	P	I	D	R
V	C	U	S	T	O	M	A	R	Y	I	T	T	L

AREA
CUSTOMARY
VARIABILITY
RANGE
PERCENT
INTEGER
VARIABLE
RATE
VOLUME
BOXPLOT
EQUIVALENT

QUADRANT
TRIANGLE
RATIO
METRIC
ADDITIVE
FINANCIAL
DECIMAL
FRACTION
ORIGIN
MEDIAN

Find Me!
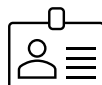
Draw Me A Face!

Answer Key

:)

PEMDAS
KCF
X, Y
SSA+
DSS-
independent, dependent

$2^3 = 2 \cdot 2 \cdot 2$

coordinate plane with quadrants I, II, III, IV

greater less
$\geq$ $\leq$

EXAMPLE

3

① $9 \div \frac{3}{4} = \boxed{12}$

$\frac{9}{1} \times \frac{4}{3} = \frac{36}{3}$

③ $\$3.78 \cdot 34$
$\$128.52$

② $s - 39 \geq 12$
$\quad +39 \ +39$
$s \geq 51$

(number line)
-1 0 51

④
Fraction	Decimal	Percent
$\frac{13}{20}$	.65	65%

Who's Correct? Determine who is correct. Explain your reasoning.
The annual salary of a police officer is $53,220. The annual salary of a flight attendant is $ 60,680. How much more would the flight attendant earn in 25 years compared to the police officer?

Amber $97,460

Chris $12,420

Amber $113,900

Donny $186,500

WRITTEN RESPONSE

7

① To build a positive credit history, I should pay cash.

TRUE or **FALSE**

② Place the fractions in order from least to greatest:

$\frac{1}{4}$ $\frac{3}{8}$ $\frac{2}{3}$ $\frac{3}{5}$

(handwritten: 0.25 0.375 0.6... 0.6, ordered ① ② ④ ③)

③ What is 75% of 80? *(handwritten: 60)*

④
A. (-3.2 , 2)   II
B. (4 , 6)   I
C. ($1\frac{1}{3}$, -5)   IV

Label the quadrants below

⑤ Model -7 + 4

⑥

Purchase No.	Date	Transaction	Debit		Credit		Balance
							$178.30
#102	7/18	Paycheck			732	64	910 94
#103	7/22	Pam's Pantry	71	50			839 44
#104	8/1	Rent	512	00			327 44
#105	8/3	Refund			26	41	353 85

After 8/3, what is Joy's balance in her account? **$353.85**

REVIEW PRACTICE

① Emma is organizing a collection of numbers in ascending order. Which list could be the one Emma created? **(6.2D)**

A. 0.63 45% $\frac{2}{5}$ 0.77 60% $\frac{7}{10}$

B. 45% 60% 0.63 $\frac{2}{5}$ 0.77 $\frac{7}{10}$

C. $\frac{2}{5}$ 45% 60% 0.63 $\frac{7}{10}$ 0.77

D. 0.63 45% $\frac{2}{5}$ 0.77 $\frac{7}{10}$ 60%

② Nia had $350 to spend. She returned a pair of shoes and received a $90 refund. She then bought a dress for $180. How much money in dollars and cents did Nia have to spend after buying the dress? **(6.3D)**

(handwritten: $260   260.00)

③ Liam earns $9.80 for each hour of work as a tutor. How much will he earn for working 8.5 hours as a tutor? **(6.3E)**

⑥
F $75.50   G $83.30   H $90.25   J $97.62

4 Kevin and Jose are both running laps on a track.

- Kevin can run 9 laps in 6 minutes.
- Jose can run 5 laps in 2 minutes.

Based on these rates, which statement is TRUE? **(6.4B)**

A Kevin can run 10 laps in 7 minutes.

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C Jose can run 2 lap farther than Kevin in 2 minutes.

D Kevin can run 1.5 laps farther than Jose in 4 minutes

5 Francisca spent $28.00 out of the $40.00 she had in her wallet. Which decimal represents the fraction of the $40.00 Francisca spent? **(6.4G)**

F 0.70

G 0.28

H 0.65

J 0.72

6 The length of a swimming pool is 53 feet 9 inches. What is the total length of the swimming pool in inches? **(6.4H)**

645 inches

Partner Work

Use your know knowledge of equations and inequalities to get from start to finish.

30.4 cm 2

START $\frac{3}{5} \cdot \frac{2}{3}$	$\frac{2}{5}$		Determine this symbol	
	$\frac{8}{15}$	$1\frac{8}{15}$	Less than or equal to	greater than or equal to
Eight less than a number is five	$\frac{1}{4}$	$x - 8 = 5$		$\frac{4}{7} \cdot \frac{2}{5}$
$8 - x = 5$	-7	$(-6) + (-3) \cdot (-2)$	$1\frac{3}{7}$	$x > 14$
Has key words: product of	0	-9	$x > -13$	$\frac{5}{8}$
Multiplication	$x \geq 25$	$-3x = -36$		$\frac{14}{16}$
Determine x	$x = 24.5$	$x = -12$	0.38	13
$x = 17x$	21.1	$\frac{3}{8}$	0.375	72 in. ___ ft
If 5 pens cost $2.50, how much do 12 pens cost?	0.75	38.3	8	6
$\frac{x}{5} < 9.5$	6	$x = 47.5$	**GOAL** Find the area 7.6 cm, 4 cm	Find the median of the data: 12,8,15,10,14, 16,11,9,13,7
			11	6

Convert to decimal

7 During a 120-minute concert, a guitarist was on stage 75% of the time. What amount of time in minutes was the guitarist on stage? **(6.5B)**

90 mins.

8 Which expression is equivalent to $24 + 4^3$? **(6.7A)**

A $(24 + 4)^3$

B $3(24 + 4)$

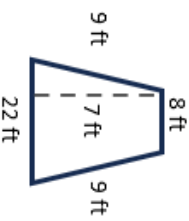C $(24 \cdot 3) + (4 \cdot 3)$

D $24 + 4 \cdot 3$

(E) None of these

9 Which expression is equivalent to $4 + (5 \cdot m)$? **(6.7D)**

(F) $(m \cdot 5) + 4$

G $(4 + 5) \cdot m$

H $4 (m \cdot 5)$

J $(5 + m) \cdot 4$

10 Ms. Green is building a garden that is shaped like a trapezoid. The dimensions of the garden are shown in the diagram. **(6.8D)**

8 ft
9 ft   7 ft   9 ft
22 ft

What is the area of the garden in square feet?

105 ft²

11 James works at Paula's Pantry. He worked one year and earned 45 hours of vacation. Which table best shows the relationships between m, month of work and v, hours of vacation? **(6.6C)**

A

Months of Work, m	Hours of Vacation, v
1	45
2	90
3	135
4	180

B

Months of Work, m	Hours of Vacation, v
3	12
4	24
5	36
6	48

(C)

Months of Work, m	Hours of Vacation, v
2	7.50
3	11.25
4	15
5	18.75

D

Months of Work, m	Hours of Vacation, v
3.75	1
7.50	2
11.25	3
18.75	4

12 Kevin wants to buy a new bicycle that costs at least $120. He decides to earn money by mowing lawns. If Kevin earns $10 for each lawn he mows, how many lawns would he need to mow to have enough money to buy the bicycle? **(6.10A)**

A $x > 12$

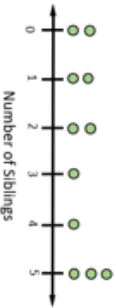(B) $x \geq 12$

C $x \leq 12$

D $x > 12$

13 James is buying jeans. Determine the median and range of the jeans. **(6.12 C)**
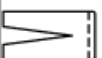
Jean Cost	
	Price
	24
	78
	60
	29
	57

Median: 57

Range: 54

14 Ms. Mack asked her students the number of siblings they had, and the results are below.

Number of siblings (0–5)

What is the interquartile range of the data? **(6.12C)**

4

15 Students were asked favorite color. Determine the relative frequency and complete the percentage graph? **(6.12D)**

Purple	Green	Red	Blue
6	3	12	9
20%	10%	40%	30%

16 The data below represents the scores of students in a math test:

Stem	Leaf
7	2 3 6 8
8	0 2 5 8
9	0 5

Which statement (s) are best supported by the data? **(6.13A)**

(A) The average score is greater than 80.

B There are more students with scores between 75 and 85 than with scores between 85 and 95.

(C) The range of scores is 23.

D The median is 80.

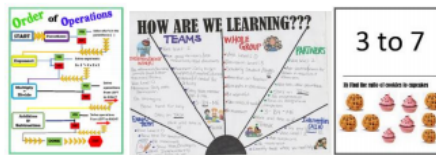E More than 50% of the student scored an 88 or higher on the math test.

DOODLE AREA

17

Use the coordinate grid to answer the following questions. (6.11A)

- Plot the following plots
  - E (-5 , -8.5)
  - F (0 , 6)
  - G (0 , 0)

- Locate the following ordered pairs
  - ⏰ : (-3.5 , 5.5)
  - 🜨 : (-6 , -7)
  - 🪐 : (3 , -8)

- Determine the quadrant
  - (-2.4 , 2) — II
  - (1/4 , 3/4) — I
  - (-3 , -4) — III
  - (5 , -3.6) — IV

Find Me!

Draw Me A Face!

Readiness Review

Locate the following equation and inequality terms in the word search:

AREA
CUSTOMARY
VARIABILITY
RANGE
PERCENT
INTEGER
VARIABLE
RATE
VOLUME
BOXPLOT
EQUIVALENT

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RATIO
METRIC
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