



## 1.14 Addition and subtraction: two-digit numbers and multiples of ten

Representations | Year 2

### **Mastery Professional Development** *Number, Addition and Subtraction*

# How to use this presentation

The following slides contain the representations described in the teacher guide, and are intended to accompany the teacher guide. They do not represent complete lessons and should not be used as such.





However, you may wish to use the slides in conjunction with the teacher guide to support the planning of lessons, in combination with other resources such as high-quality textbooks that follow a teaching-for-mastery approach.

You can find the teacher guide *1.14 Addition and subtraction: two-digit numbers and multiples of ten* by following the link below.

# 1.14 Calculation: two-digit +/- tens – step 1:1

1000	2000	3000	4000	5000	6000	7000	8000	9000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9

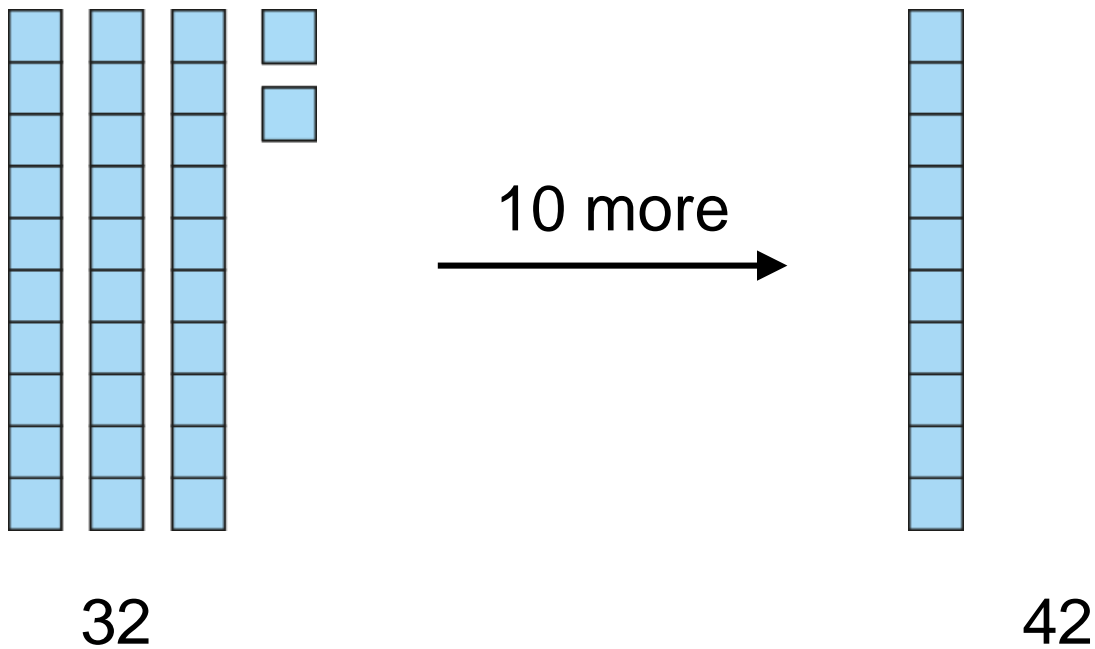
# 1.14 Calculation: two-digit +/- tens – step 1:2

1000	2000	3000	4000	5000	6000	7000	8000	9000
100	200	300	400	500	600	700	800	900
 10	 20	 30	40	50	60	70	80	90
1	2	3	 4	5	6	7	8	9

# 1.14 Calculation: two-digit +/- tens – step 1:3

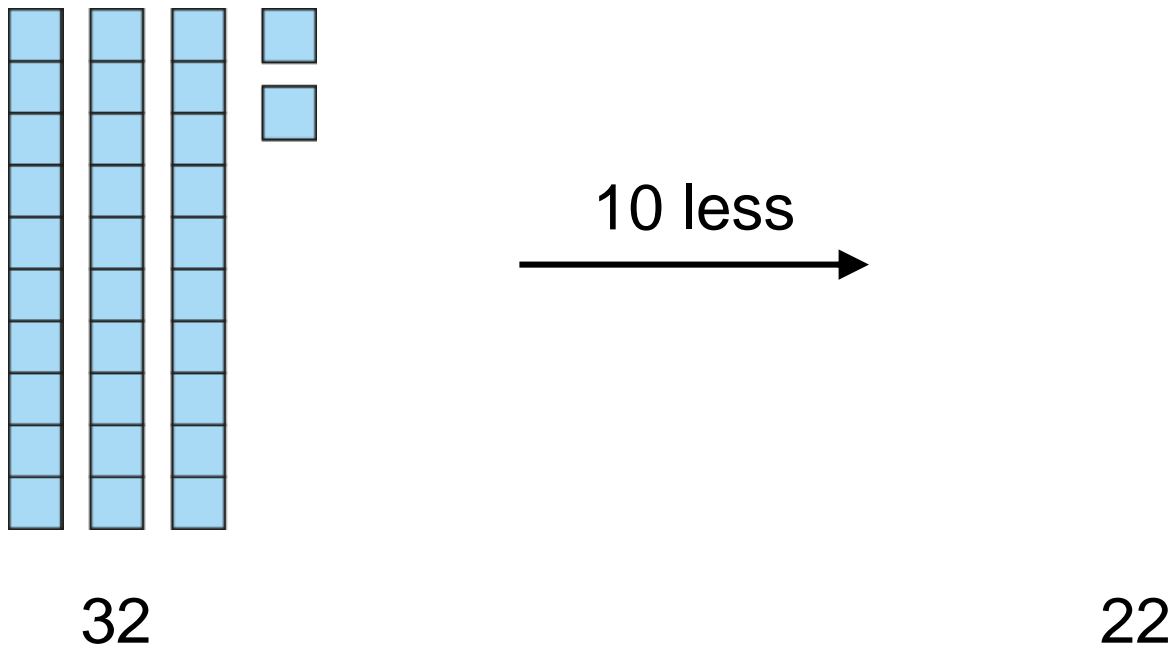
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

# 1.14 Calculation: two-digit +/- tens – step 1:4



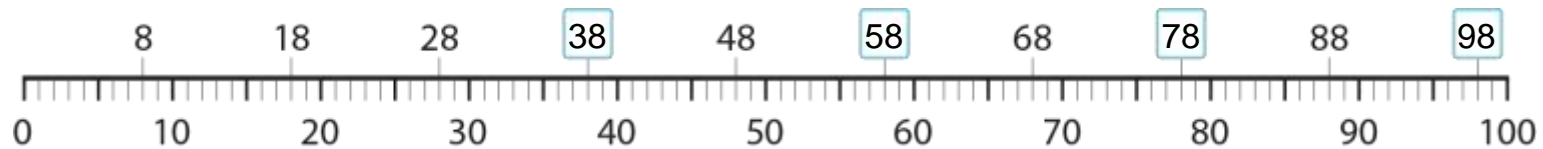
What is 10 more? What will it look like?

# 1.14 Calculation: two-digit +/- tens – step 1:4



What is 10 less? What will it look like?

# 1.14 Calculation: two-digit +/- tens – step 1:5





# 1.14 Calculation: two-digit +/- tens – step 2:1

$14 + 10 = 24$

$24 + 10 = 34$

$34 + 10 = 44$

$44 + 10 = 54$

$54 + 10 = 64$

$64 + 10 = 74$

$74 + 10 = 84$

$84 + 10 = 94$

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	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

# 1.14 Calculation: two-digit +/- tens – step 2:1

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	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$$24 - 10 = 14$$

$$34 - 10 = 24$$

$$44 - 10 = 34$$

$$54 - 10 = 44$$

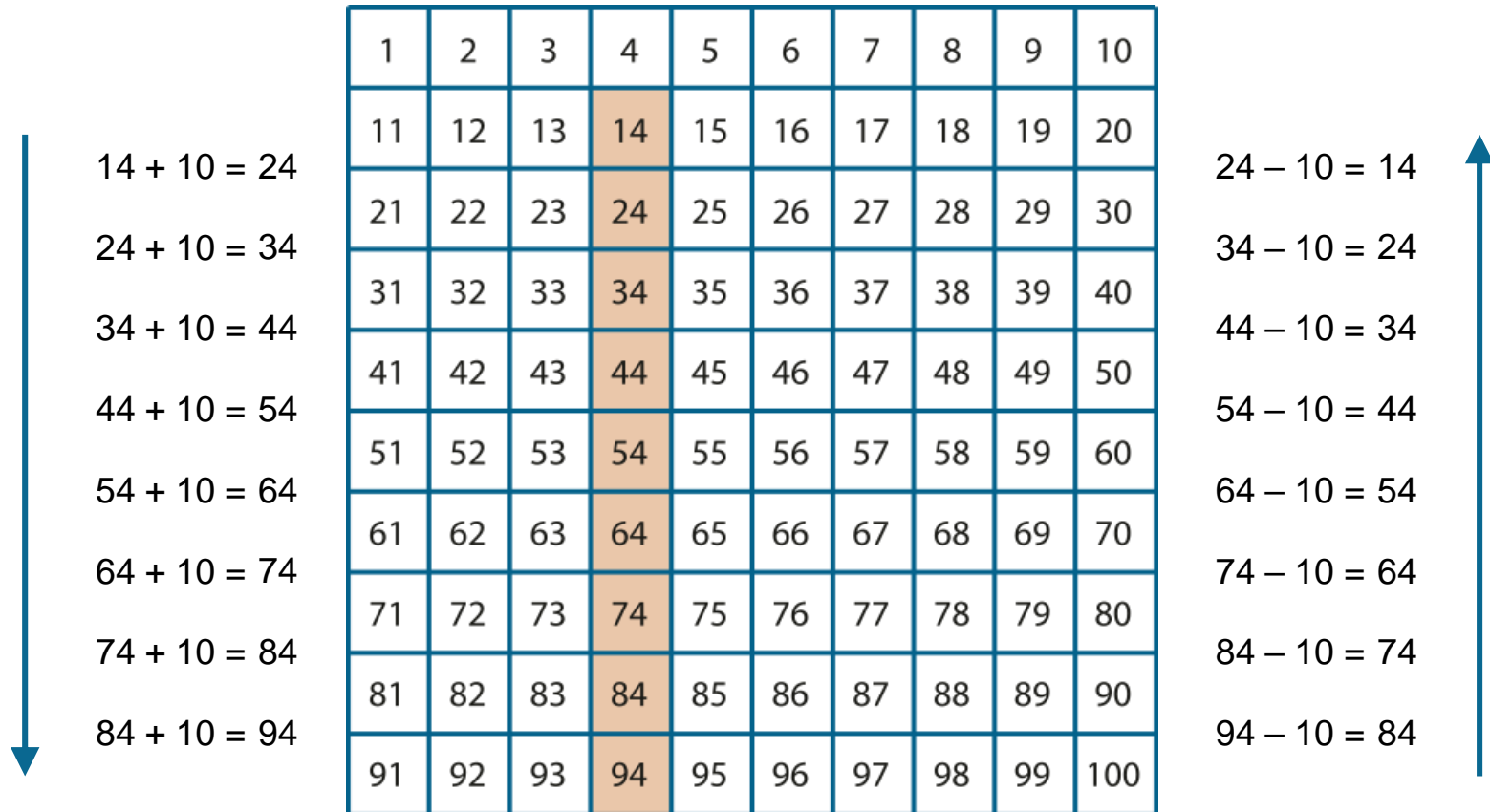
$$64 - 10 = 54$$

$$74 - 10 = 64$$

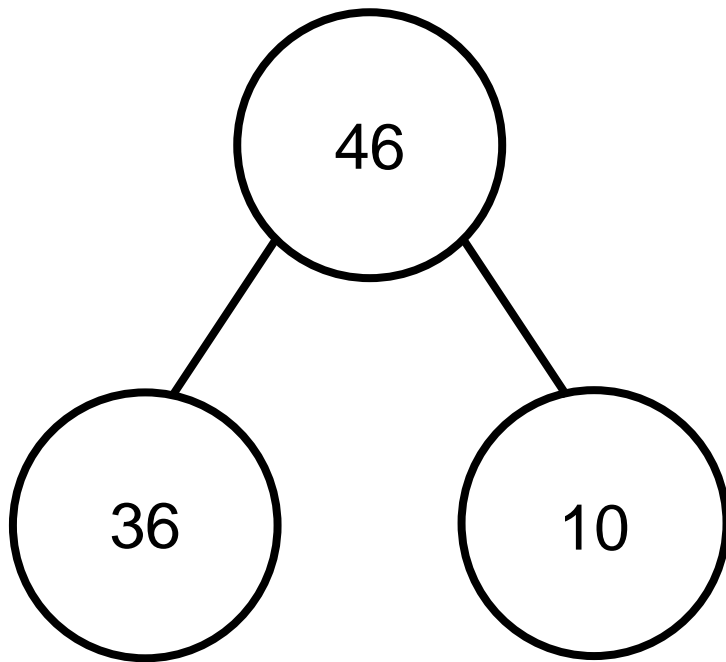
$$84 - 10 = 74$$

$$94 - 10 = 84$$

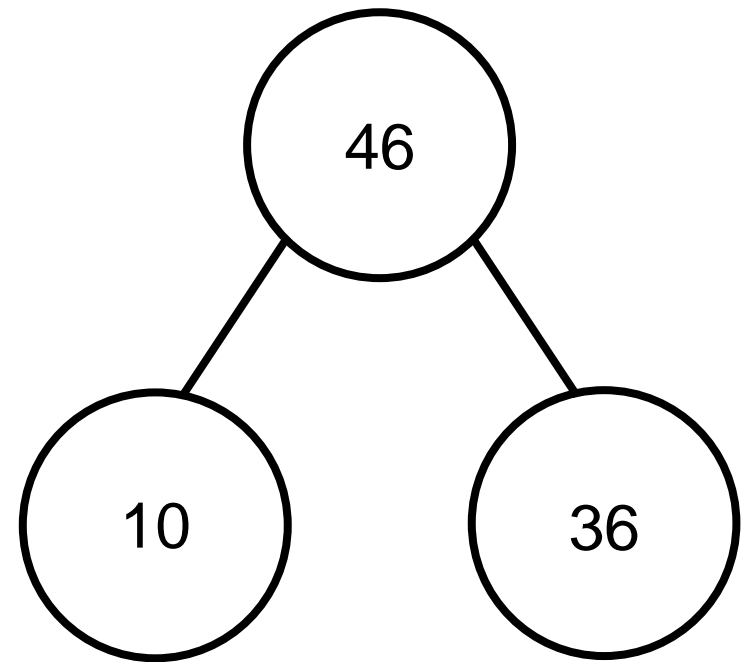
# 1.14 Calculation: two-digit +/- tens – step 2:1



# 1.14 Calculation: two-digit +/- tens – step 2:3

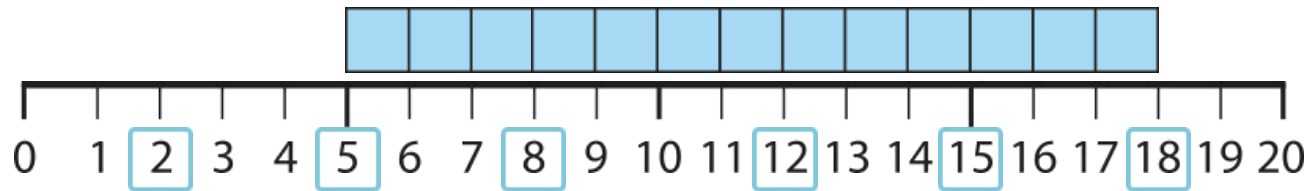


$$36 + 10 = 46$$



$$10 + 36 = 46$$

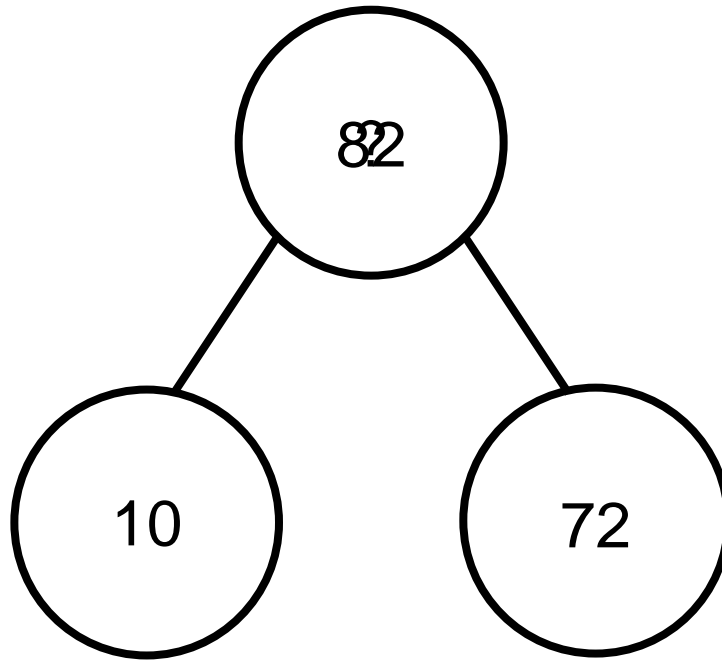
# 1.14 Calculation: two-digit +/- tens – step 2:4



# 1.14 Calculation: two-digit +/- tens – step 2:4

1000	2000	3000	4000	5000	6000	7000	8000	9000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9

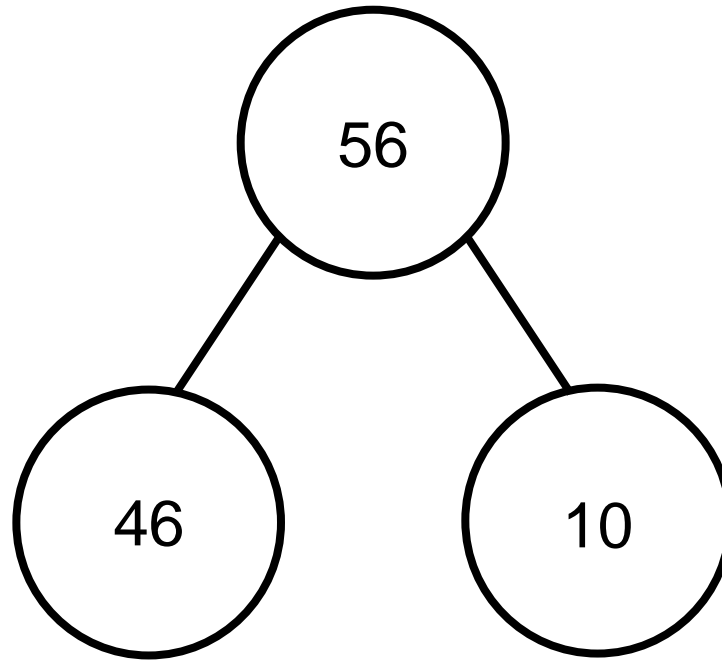
# 1.14 Calculation: two-digit +/- tens – step 2:5



$$\boxed{82} = 10 + 72$$

$$72 = \boxed{82} - 10$$

# 1.14 Calculation: two-digit +/- tens – step 2:5

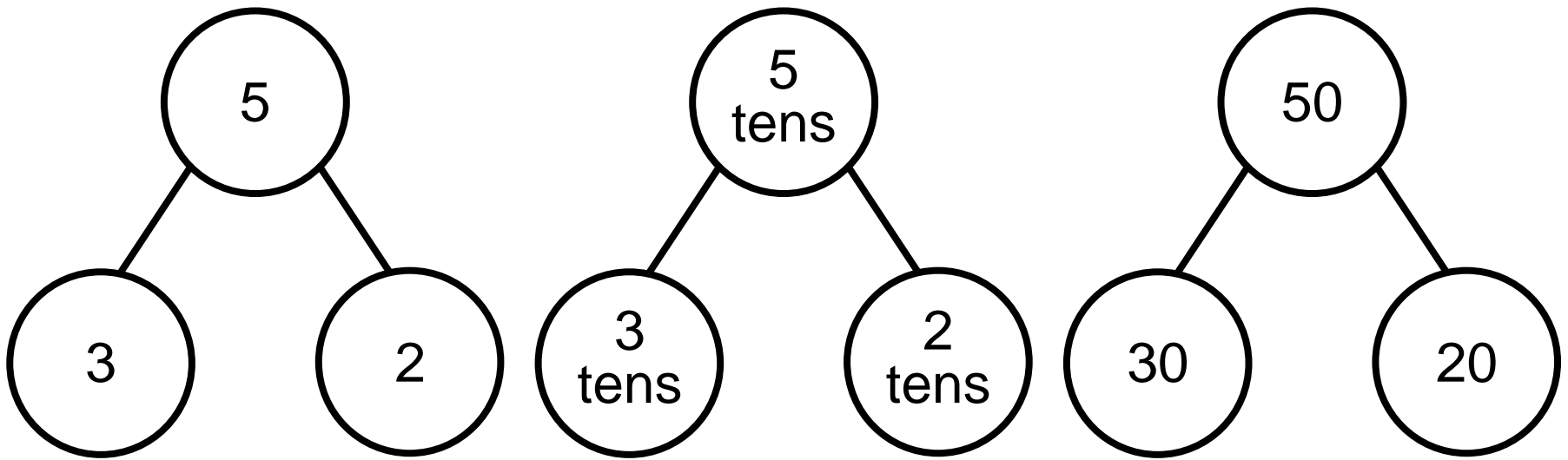


$$46 = 56 \text{ } \textcircled{-} \text{ } 10$$

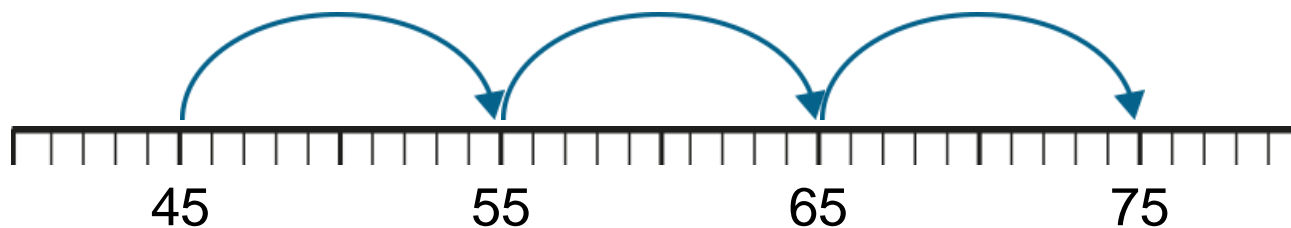
$$56 = 46 \text{ } \textcircled{+} \text{ } 10$$



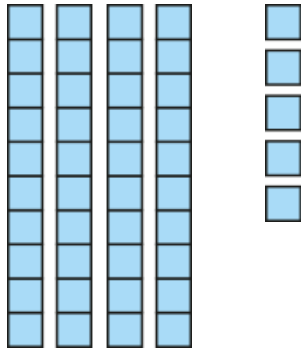
# 1.14 Calculation: two-digit +/- tens – step 3:1



# 1.14 Calculation: two-digit +/- tens – step 3:2



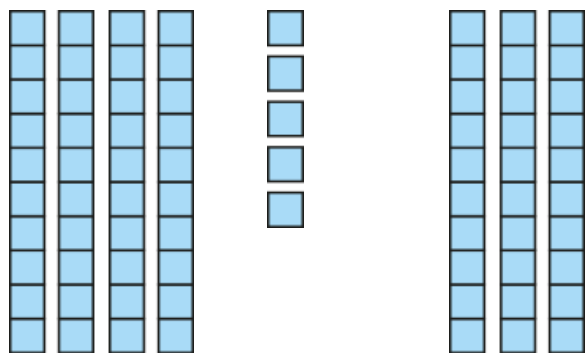
# 1.14 Calculation: two-digit +/- tens – step 3:3



$$45 = 40 + 5$$

# 1.14 Calculation: two-digit +/- tens – step 3:3

$$45 + 30 = 75$$

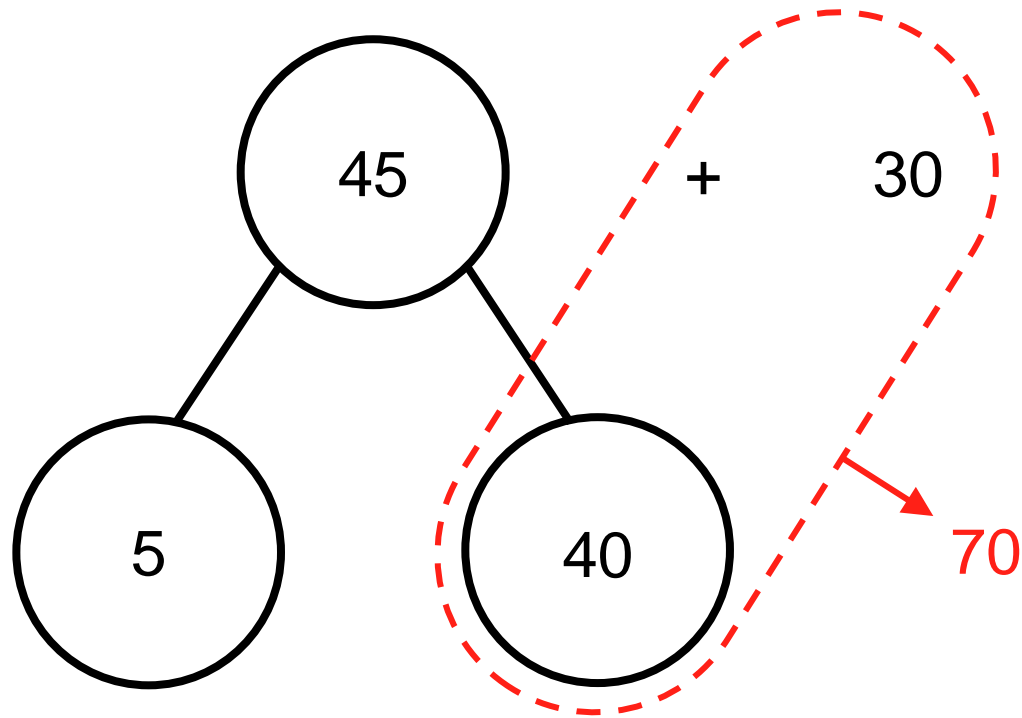


# 1.14 Calculation: two-digit +/- tens – step 3:3

$$\begin{array}{r} 45 \\ / \quad \backslash \\ 40 \quad 5 \end{array} + 30 = 75$$

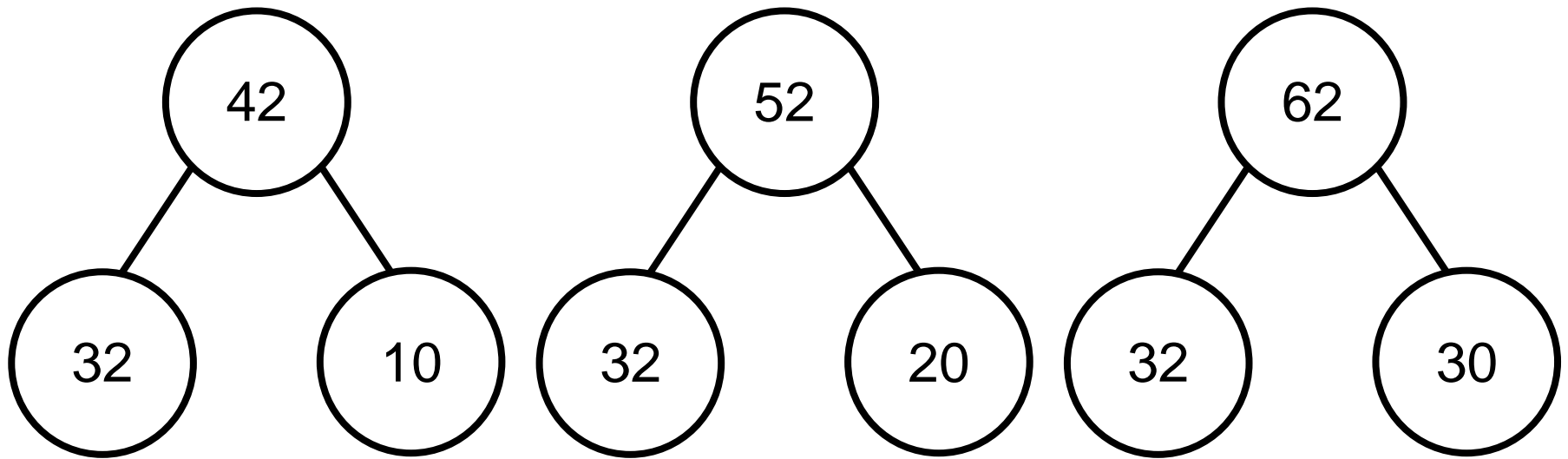
10s	1s
4 <del>7</del> 3	5

# 1.14 Calculation: two-digit +/- tens – step 3:3

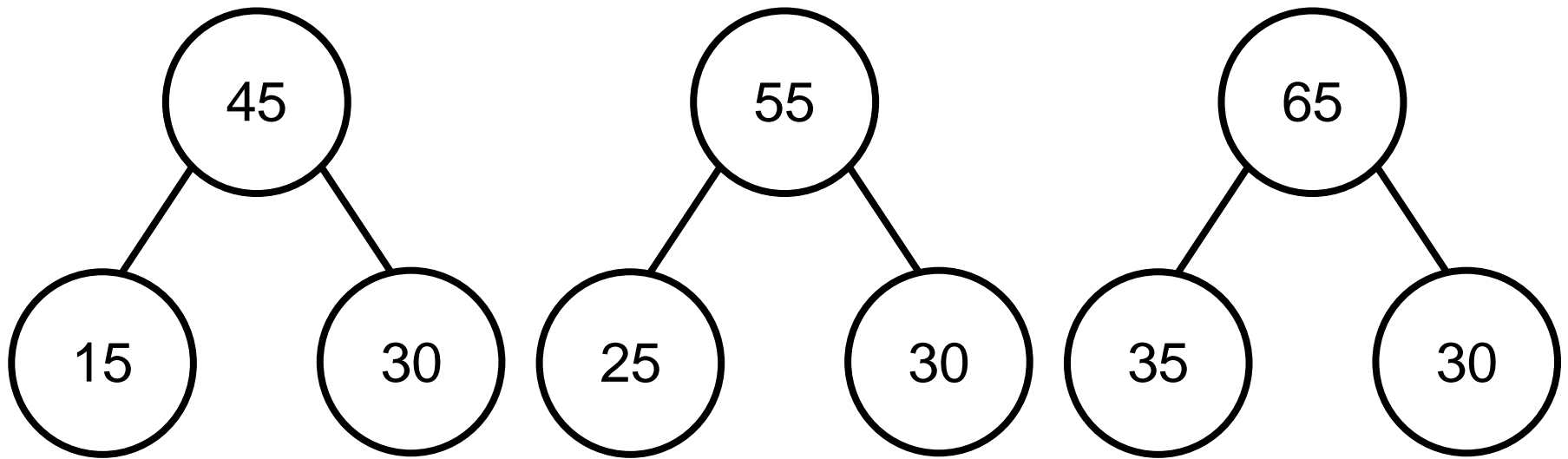


$$45 + 30 = 75$$

# 1.14 Calculation: two-digit +/- tens – step 3:4

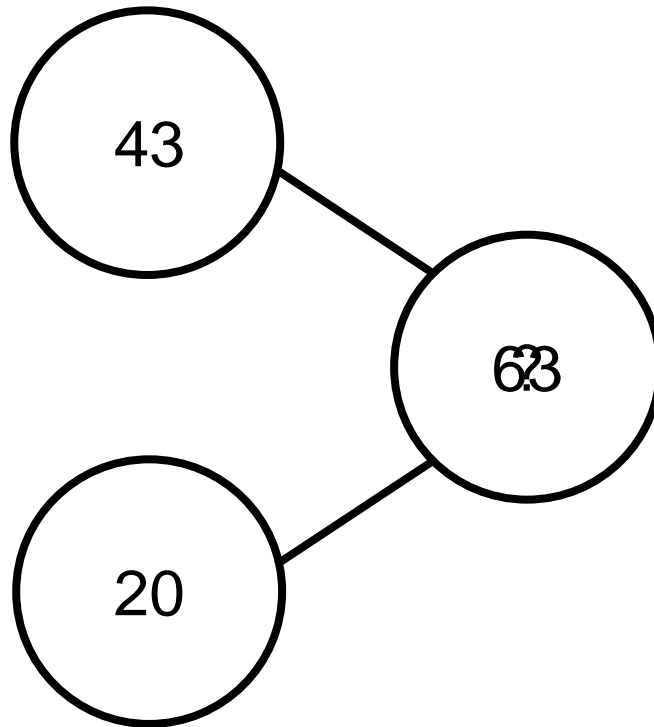


# 1.14 Calculation: two-digit +/- tens – step 3:4

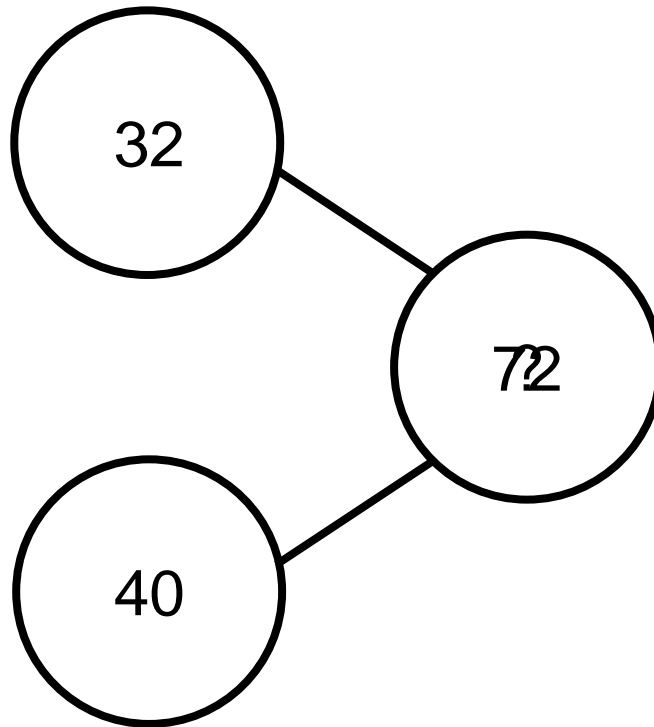




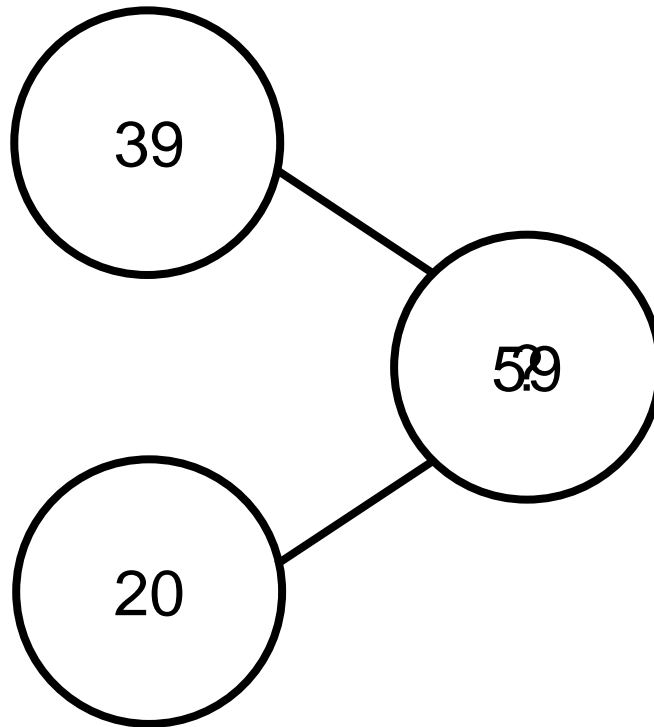
# 1.14 Calculation: two-digit +/- tens – step 3:5



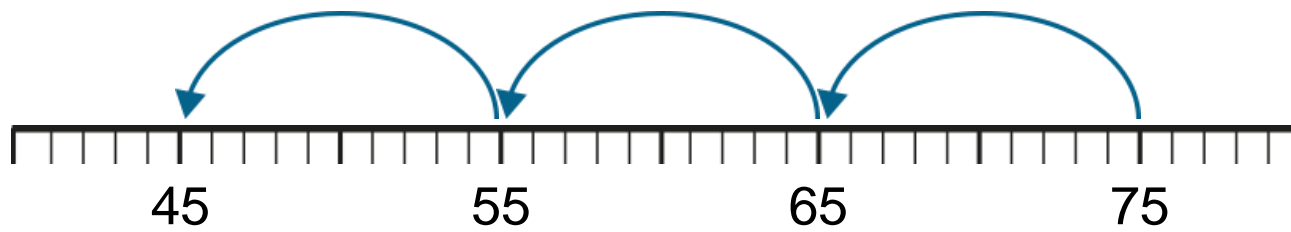
# 1.14 Calculation: two-digit +/- tens – step 3:5



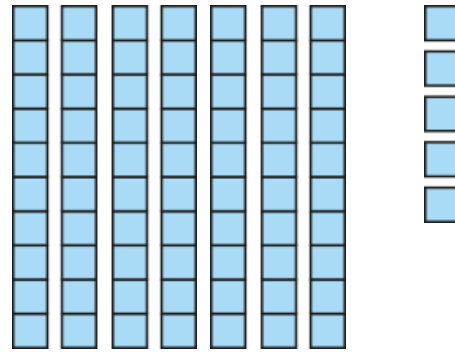
# 1.14 Calculation: two-digit +/- tens – step 3:5



# 1.14 Calculation: two-digit +/- tens – step 3:6



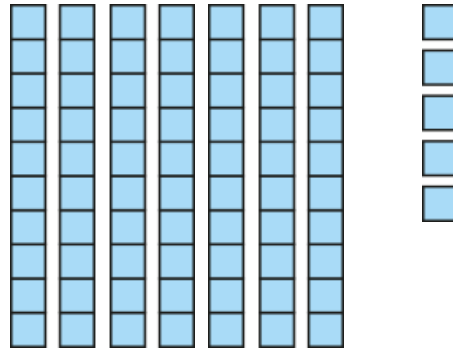
# 1.14 Calculation: two-digit +/- tens – step 3:7



$$75 = 70 + 5$$

# 1.14 Calculation: two-digit +/- tens – step 3:7

$$75 - 30 = 45$$

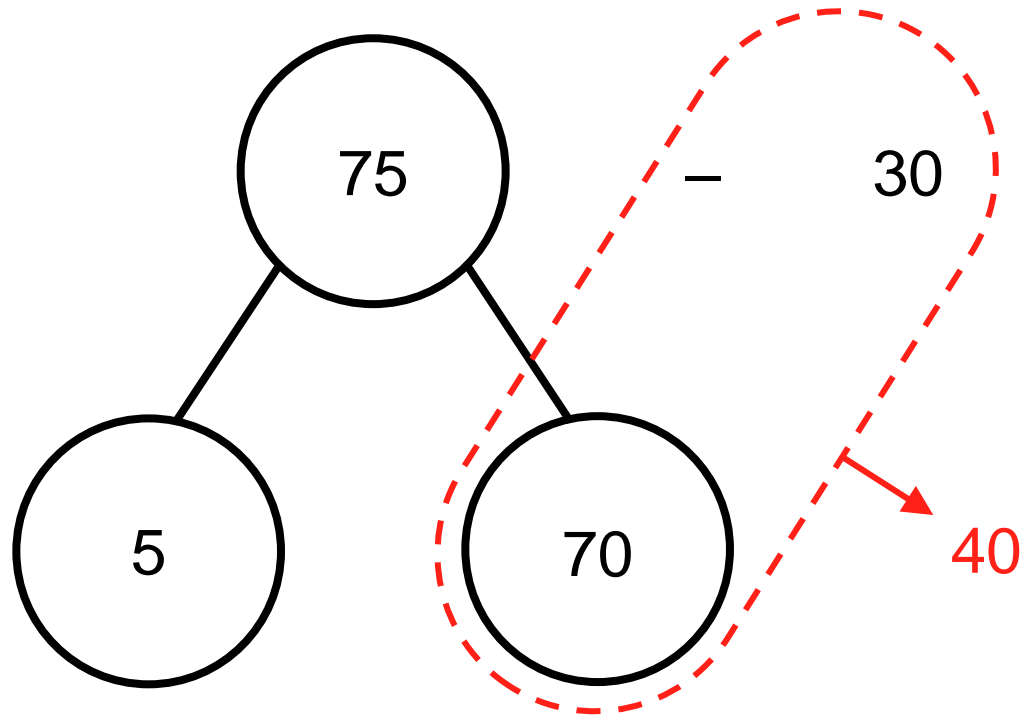


# 1.14 Calculation: two-digit +/- tens – step 3:7

$$\begin{array}{r} 75 \\ / \quad \backslash \\ 70 \quad 5 \end{array} - 30 = 45$$

10s	1s
7 4 3	5

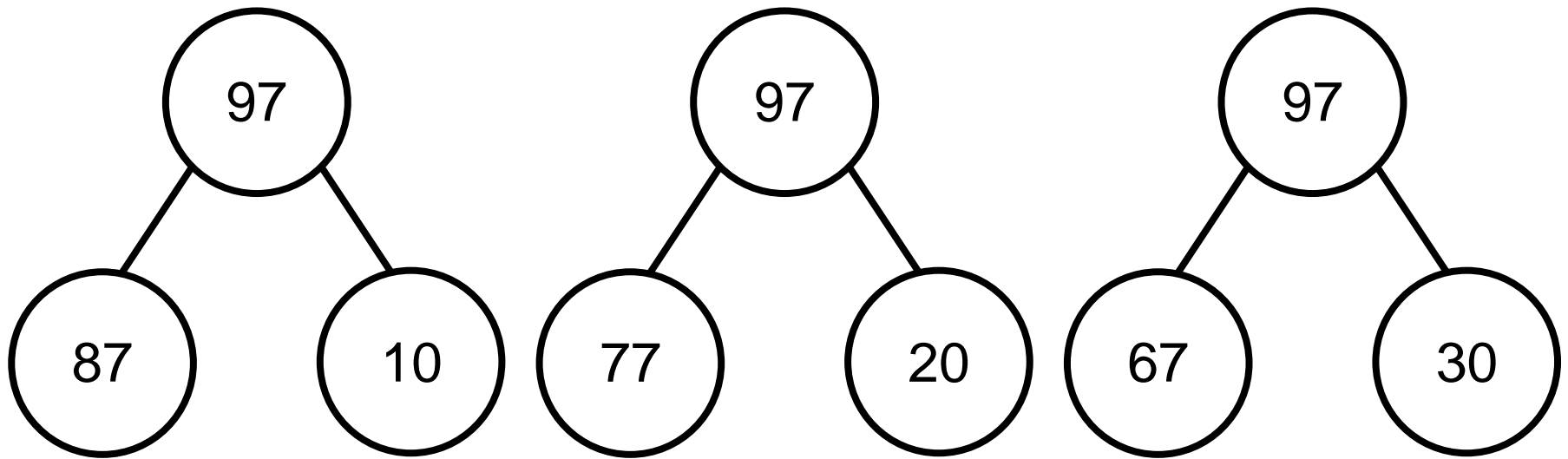
# 1.14 Calculation: two-digit +/- tens – step 3:7



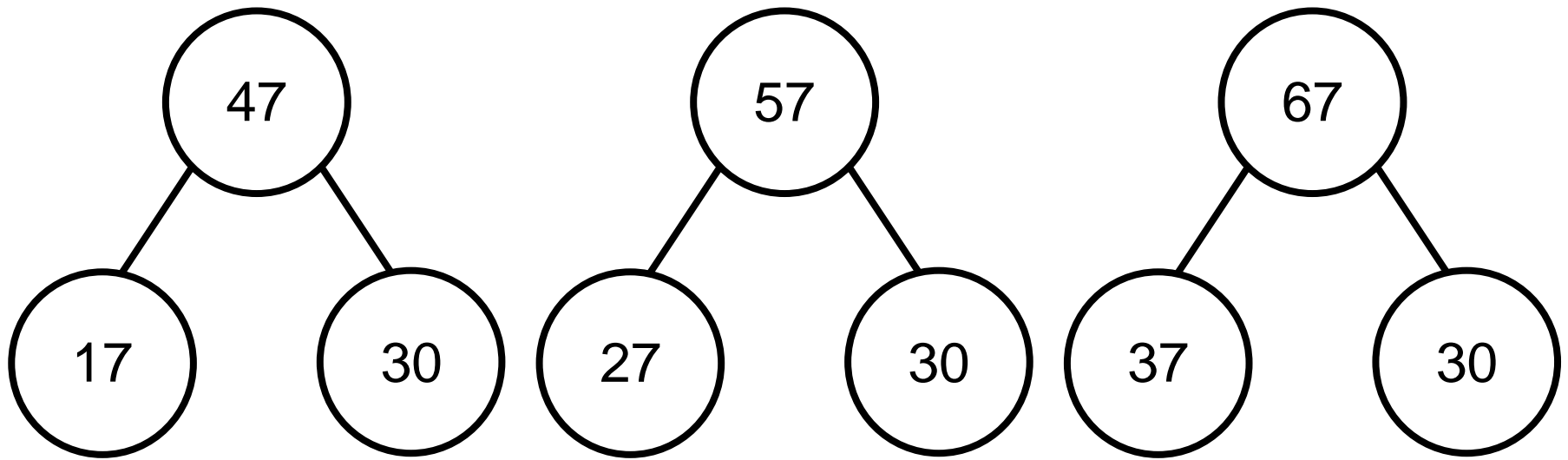
$$75 - 30 = 45$$



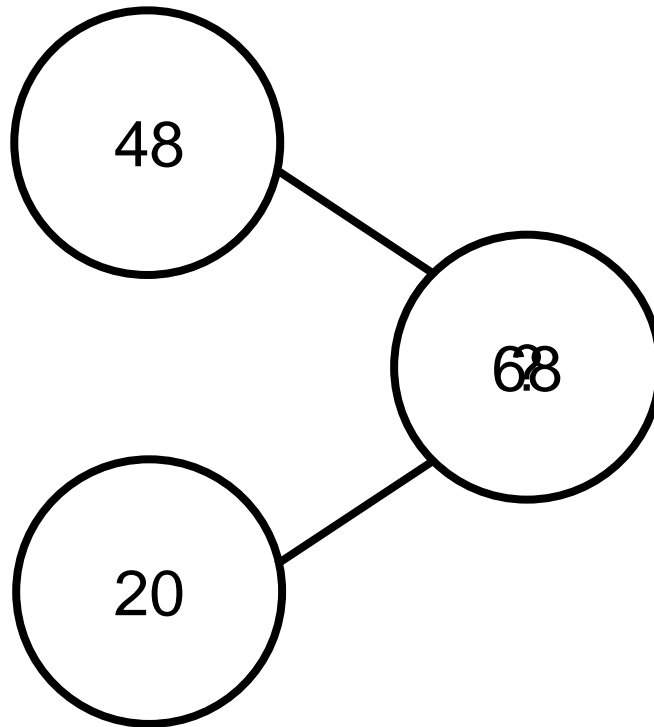
# 1.14 Calculation: two-digit +/- tens – step 3:8



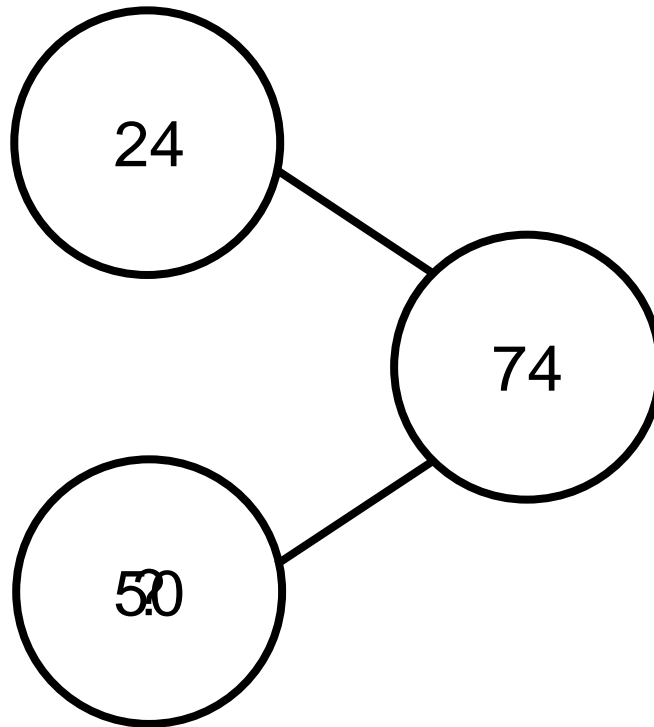
# 1.14 Calculation: two-digit +/- tens – step 3:8



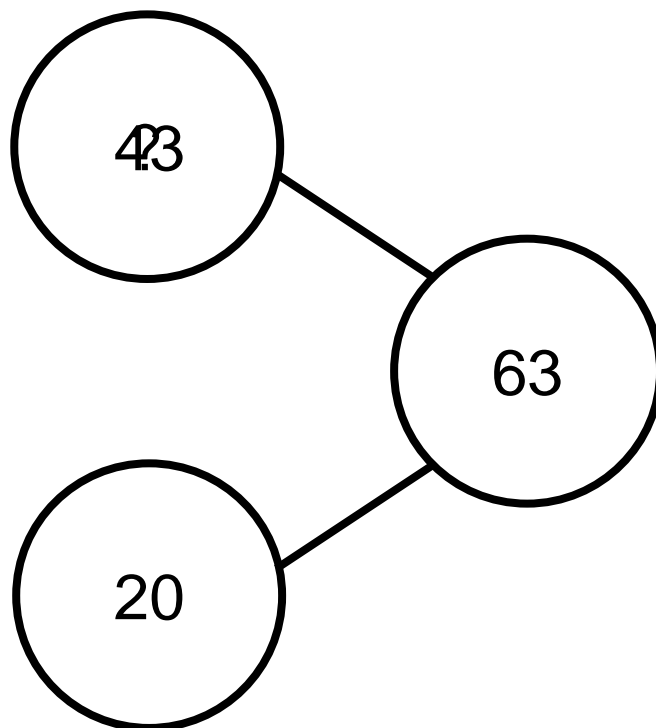
# 1.14 Calculation: two-digit +/- tens – step 3:9



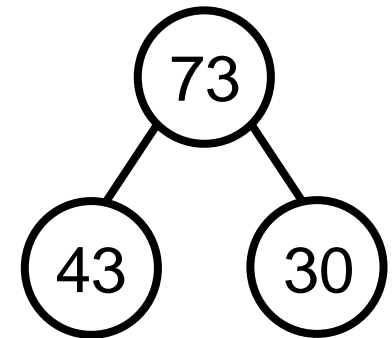
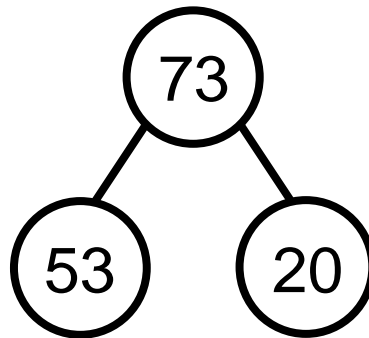
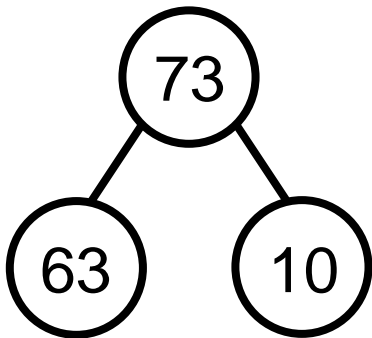
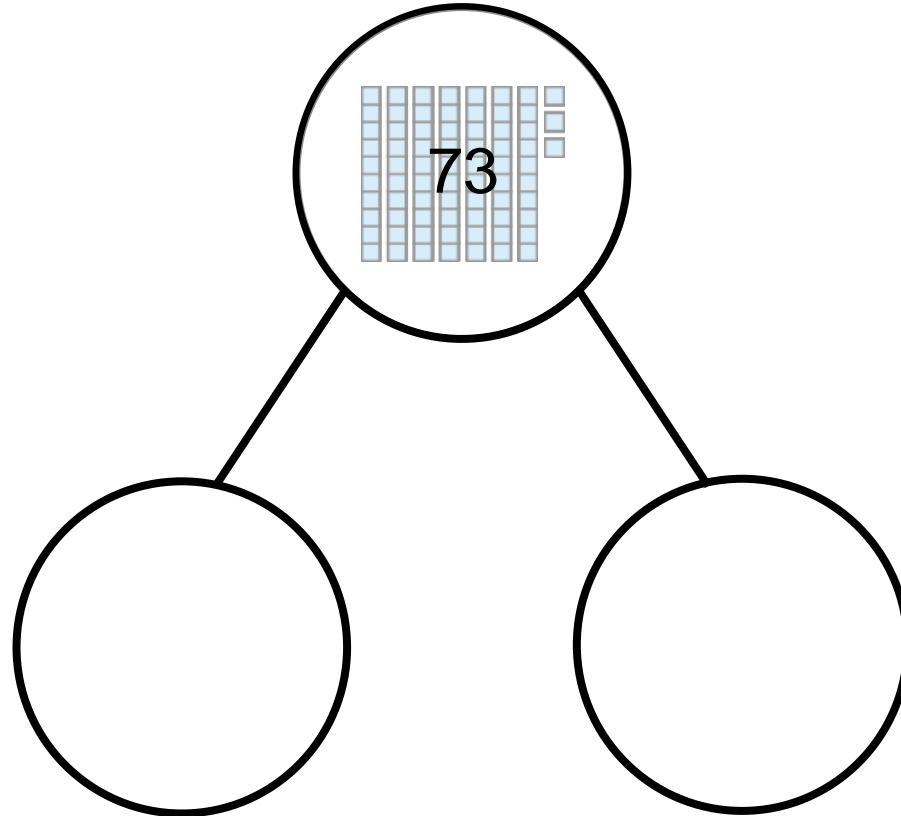
# 1.14 Calculation: two-digit +/- tens – step 3:9



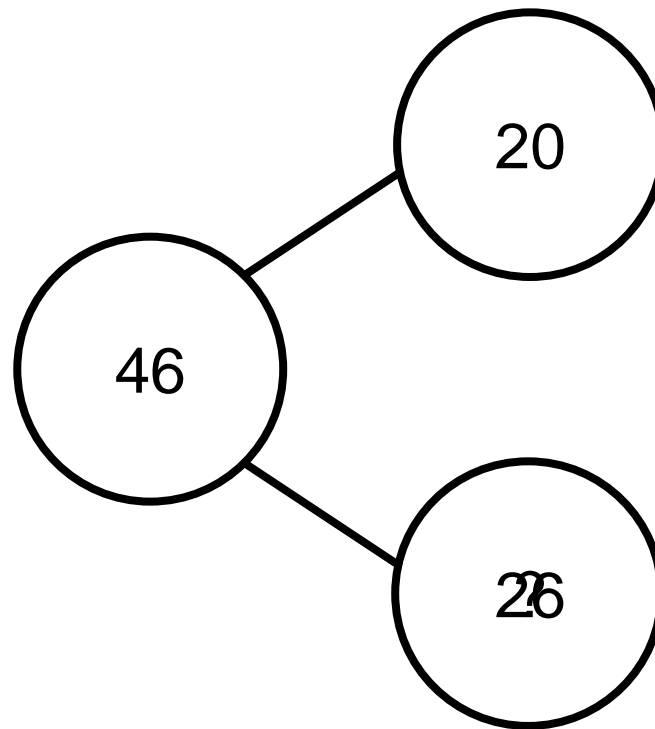
# 1.14 Calculation: two-digit +/- tens – step 3:9



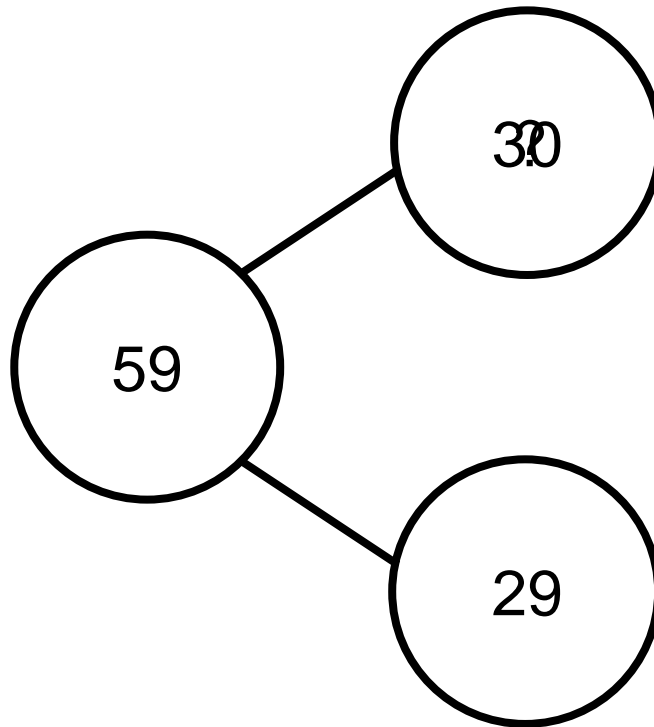
# 1.14 Calculation: two-digit +/- tens – step 4:1



# 1.14 Calculation: two-digit +/- tens – step 4:1

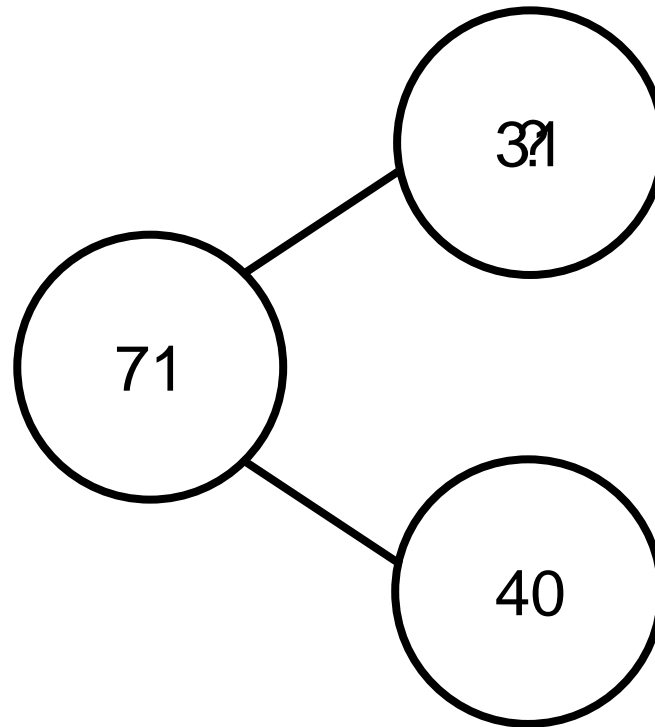


# 1.14 Calculation: two-digit +/- tens – step 4:1





# 1.14 Calculation: two-digit +/- tens – step 4:1



# 1.14 Calculation: two-digit +/- tens – step 4:2

