



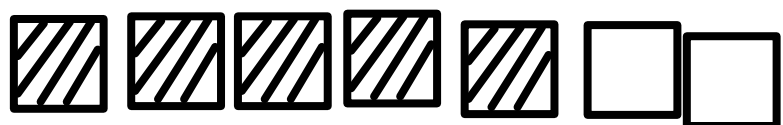
Warm Up Grade 7

Date: Sept. 22

Gr 7 Test
FRIDAY



1) Represent the following as addition and find the sum:



$$(+5) + (-2) = (+3)$$

Shade + unshaded

2) Represent the following as addition and find the sum:

a) The temperature is -30°C at noon and rises by 12°C by supper time. What is the temp at supper time?

$$(-30) + (+12) = (-18)$$

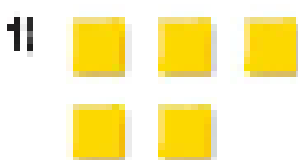
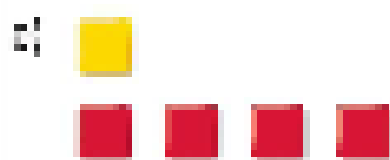
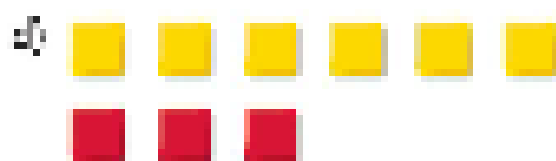
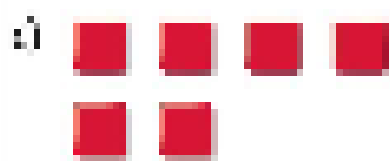
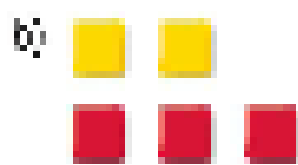
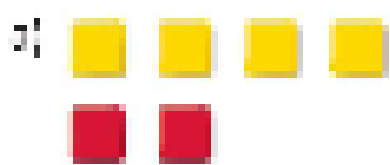


Homework solutions

Use coloured tiles.

1. What sum does each set of tiles model?

Write the addition equation.



2. What sum does each set of tiles model?

How do you know you are correct?

- a) 3 yellow tiles and 2 red tiles
- b) 3 yellow tiles and 4 red tiles
- c) 2 red tiles and 2 yellow tiles

a) $(+4) + (-2) = +2$

b) $(+2) + (-3) = -1$

c) $(-4) + (-2) = -6$

d) $(+6) + (-3) = +3$

e) $(+1) + (-4) = -3$

f) $(+3) + (+2) = +5$

2 a) $(+3) + (-2) = +1$

b) $(+3) + (-4) = -1$

c) $(-2) + (+2) = 0$

Homework solutions

3. Use coloured tiles to represent each sum. Find each sum.

Sketch the tiles you used. What do you notice?

a) $(+2) + (-2) = 0$ b) $(-4) + (+4) = 0$ c) $(+5) + (-5)$



4. Add. Sketch coloured tiles to show how you did it.

a) $(+2) + (+3)$ b) $(-3) + (+4)$ c) $(-4) + (-1)$

d) $(+1) + (-1)$ e) $(-3) + (-4)$ f) $(+5) + (-2)$

5. Add. Write the addition equations.

a) $(+4) + (+3)$ b) $(-7) + (+5)$ c) $(-4) + (-5)$

d) $(+8) + (-1)$ e) $(-10) + (-6)$ f) $(+4) + (-13)$

6. Represent each sentence with integers, then find each sum.

a) The temperature drops 3°C and rises 4°C .

b) Marie earned \$5 and spent \$3.

c) A stock rises 15¢, then falls 7¢.

d) Jerome moves his game piece 3 squares backward, then 8 squares forward.

e) Duma deposits \$12, then withdraws \$5.

a) $(-3) + (+4) = (+1)$

b) $(+5) + (-3) = (+2)$

c) $(+15) + (-7) = (+8)$

d) $(-3) + (+8) = (+5)$

e) $(+12) + (-5) = (+7)$



a) $(+2) + (+3) = (+5)$



d) $(+1) + (-1) = 0$



f) $(+5) + (-2) = (+3)$



3. Use coloured tiles to represent each sum. Find each sum.

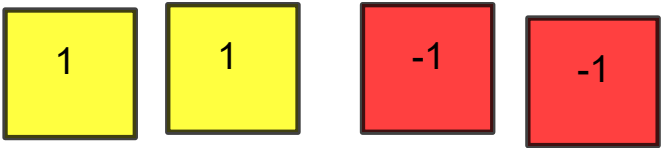
Homework solutions

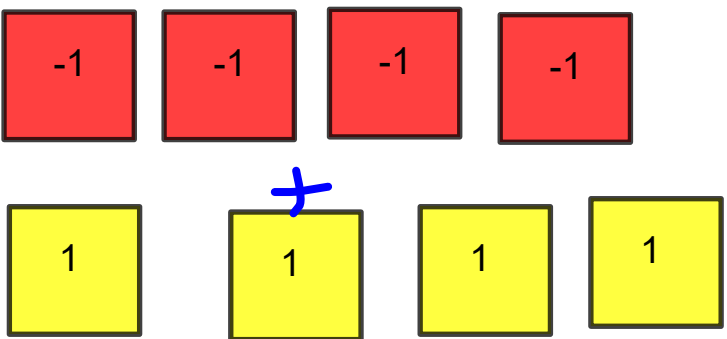
Sketch the tiles you used. What do you notice?

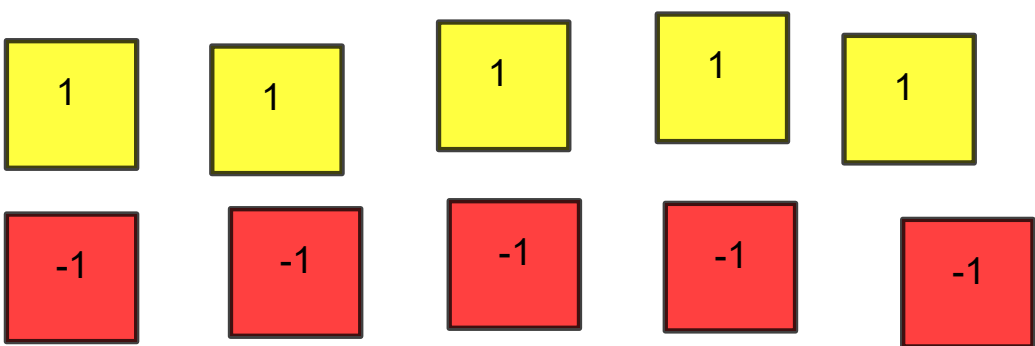
a) $(+2) + (-2)$

b) $(-4) + (+4)$

c) $(+5) + (-5)$

a)  = 0

b)  = 0

c)  = 0

4. Add. Sketch coloured tiles to show how you did it.

a) $(+2) + (+3)$

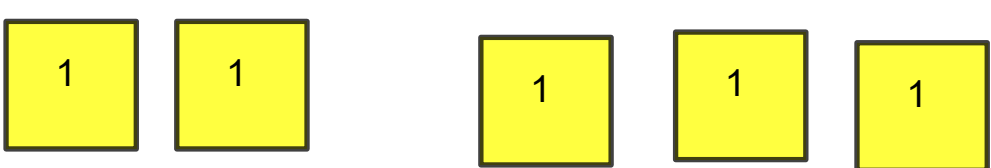
b) $(-3) + (+4)$

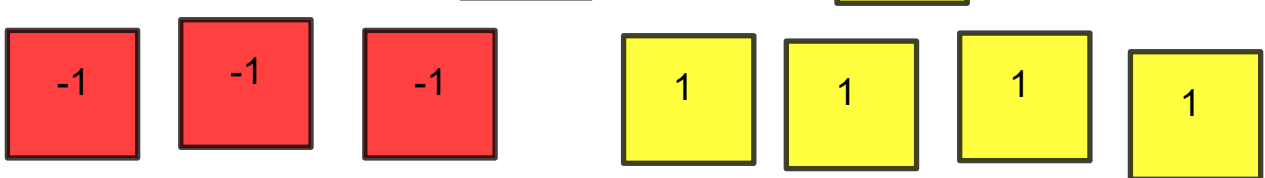
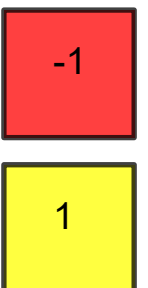
c) $(-4) + (-1)$

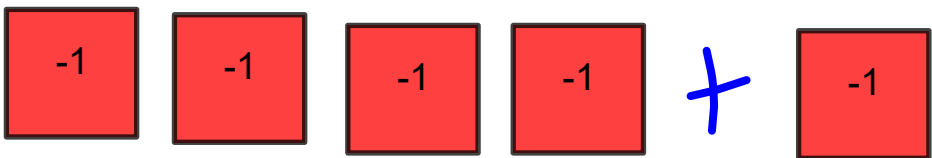
d) $(+1) + (-1)$

e) $(-3) + (-4)$

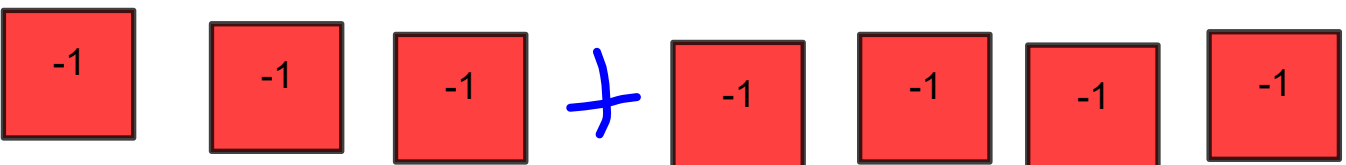
f) $(+5) + (-2)$

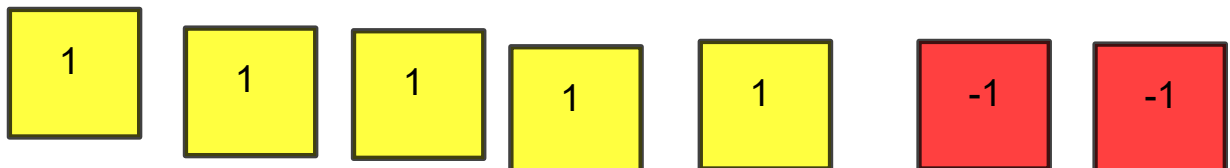
a)  = +5

b)  = +1 

c)  = -5

d)  = 0

e)  = -7

f)  = +3

Homework solutions

5. Add. Write the addition equations.

a) $(+4) + (+3)$

b) $(-7) + (+5)$

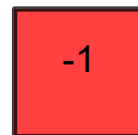
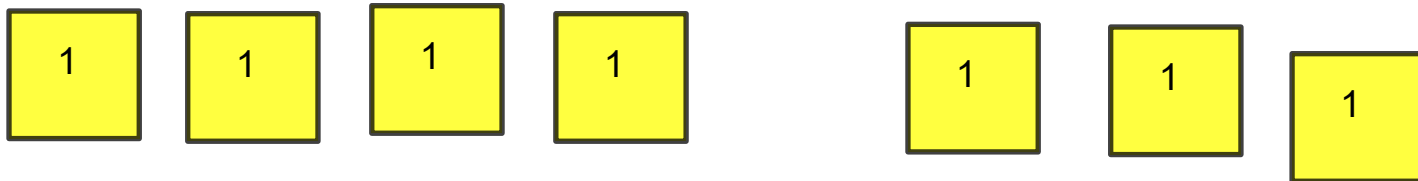
c) $(-4) + (-5)$

d) $(+8) + (-1)$

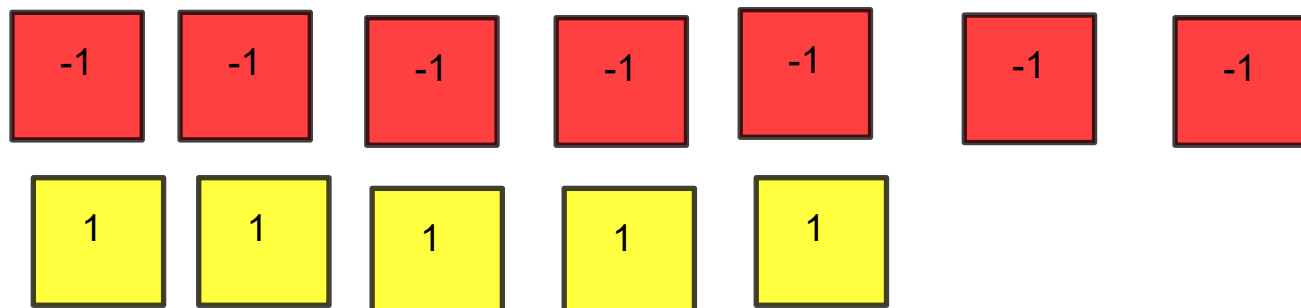
e) $(-10) + (-6)$

f) $(+4) + (-13)$

a) $+4 + (+3) = +7$



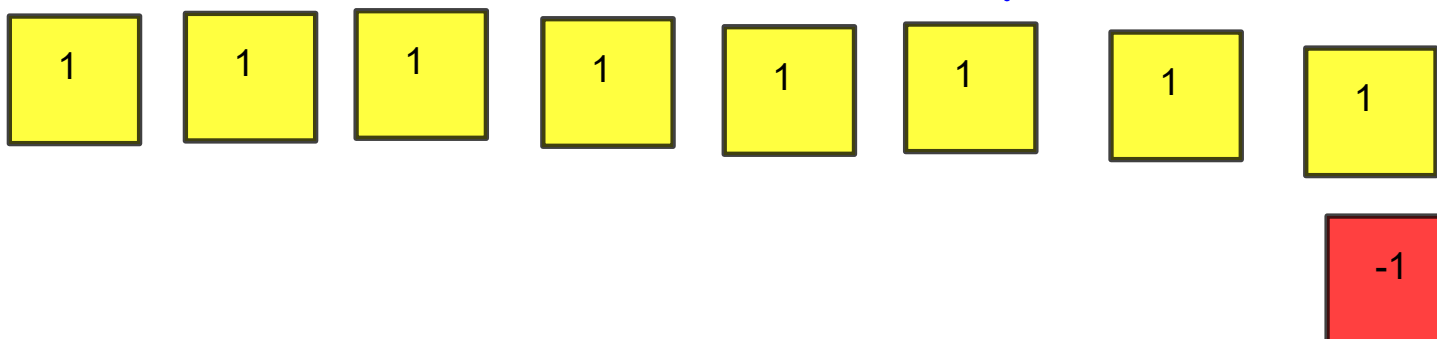
b) $(-7) + (+5) = -2$



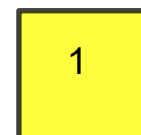
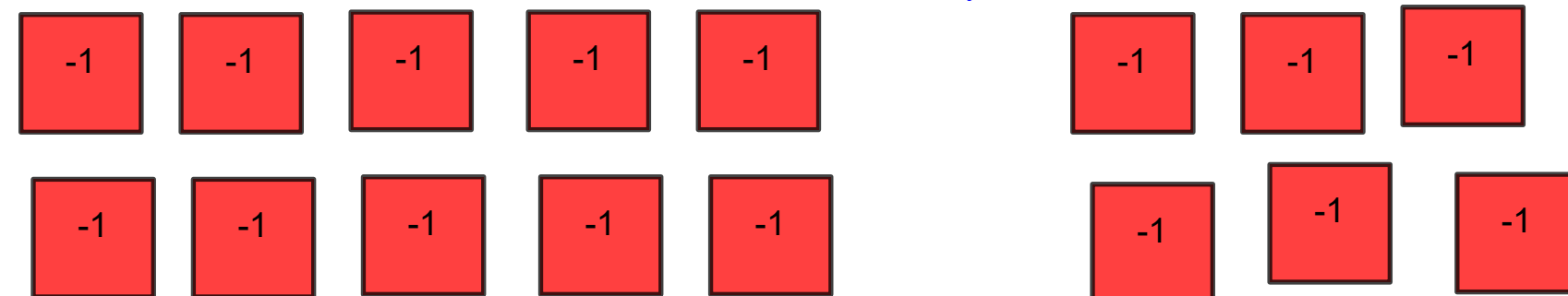
c) $(-4) + (-5) = -9$



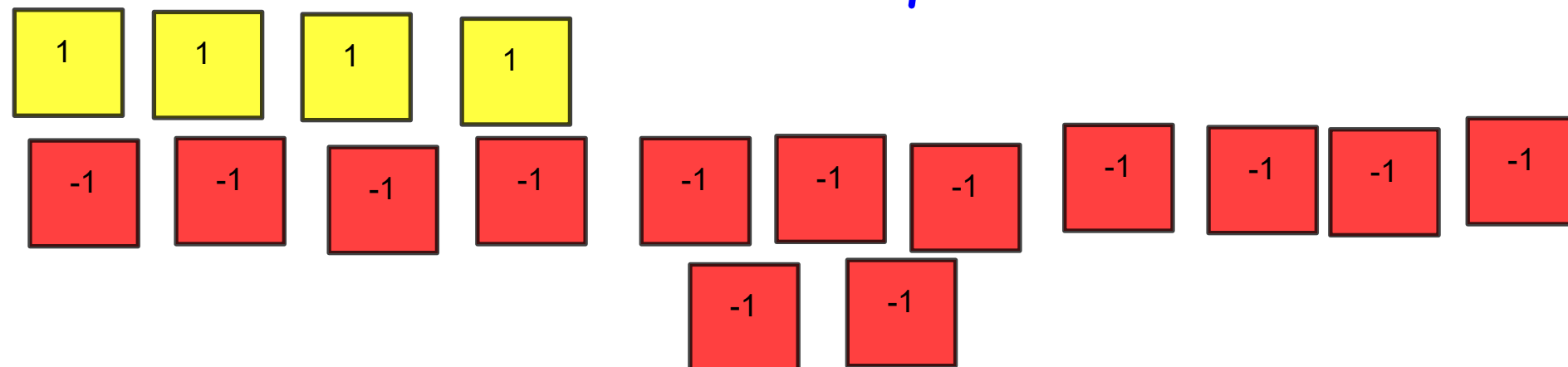
d) $(+8) + (-1) = +7$



e) $(-10) + (-6) = -16$



f) $(+4) + (-13) = -9$



Homework solutions

6. Represent each sentence with integers, then find each sum.

a) The temperature drops 3°C and rises 4°C .

b) Marie earned \$5 and spent \$3.

c) A stock rises 15¢, then falls 7¢.

d) Jerome moves his game piece 3 squares backward, then 8 squares forward.

e) Duma deposits \$12, then withdraws \$5.

model

$$a) (-3) + (+4) = +1$$

$$b) (+5) + (-3) = +2$$

$$c) (+15) + (-7) = +8$$

$$d) (-3) + (+8) = +5$$

$$e) (+12) + (-5) = +7$$

Homework solutions

8. Copy and complete.

a) $(+5) + \square = +8$

b) $\square + (-3) = -4$

c) $(+3) + \square = +1$

d) $(-5) + \square = -3$

e) $(+2) + \square = +1$

f) $\square + (-6) = 0$

9. Assessment Focus

a) Add: $(+3) + (-7)$

b) Suppose you add the integers in the opposite order:

$(-7) + (+3)$. Does the sum change?

1

Use coloured tile drawings and words to explain the result.

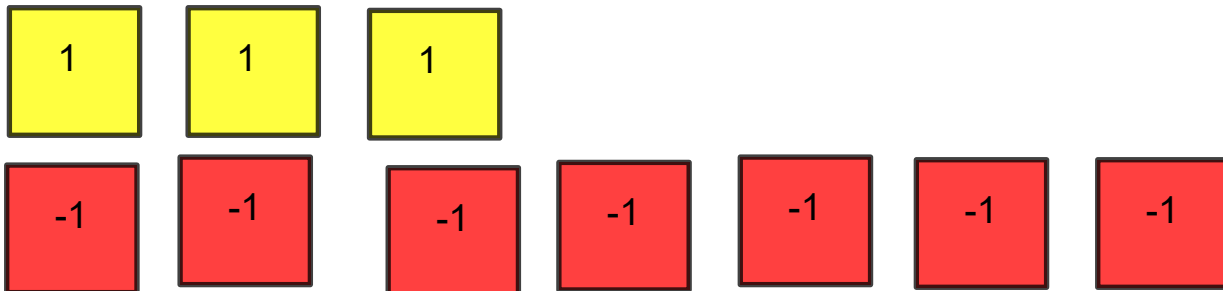
c) How is $(-3) + (+7)$ different from $(+3) + (-7)$? Explain.

-1

d) Repeat parts a to c with a sum of integers of your choice.

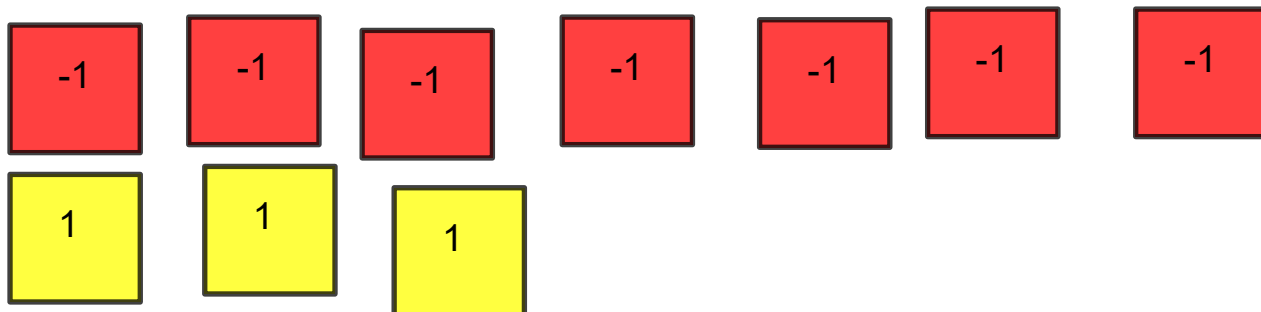
What do you notice?

a)



$= -4$

b) $(-7) + (+3)$



$= -4$

Homework solutions

10. Take It Further Add. Sketch coloured tiles to show how you did it.

a) $(+1) + (+2) + (+3)$

b) $(+2) + (-1) + (+3)$

c) $(-3) + (-1) + (-1)$

d) $(+4) + (-3) + (+1)$

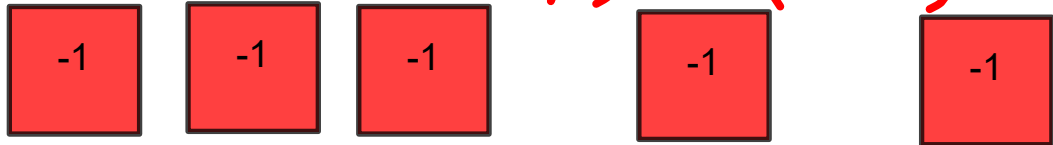
a) $(+1) + (+2) + (+3) = +6$



b) $(+2) + (-1) + (+3) = +4$



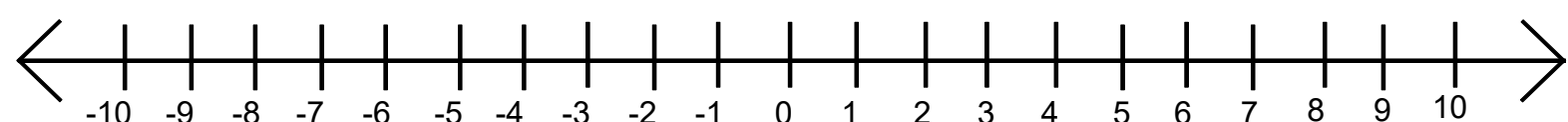
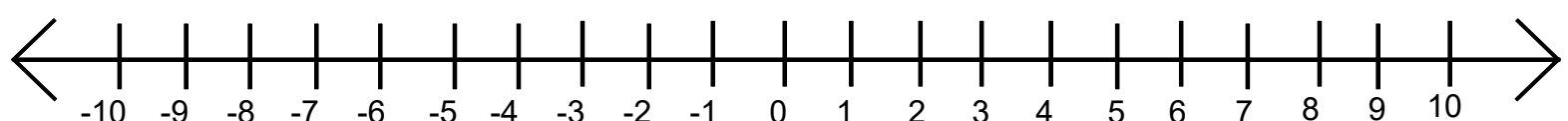
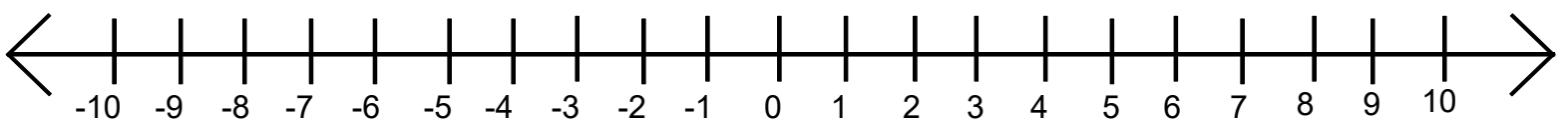
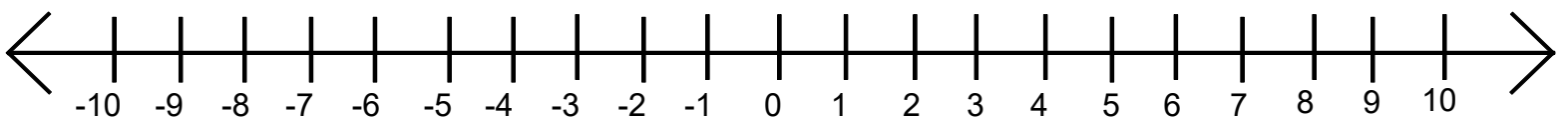
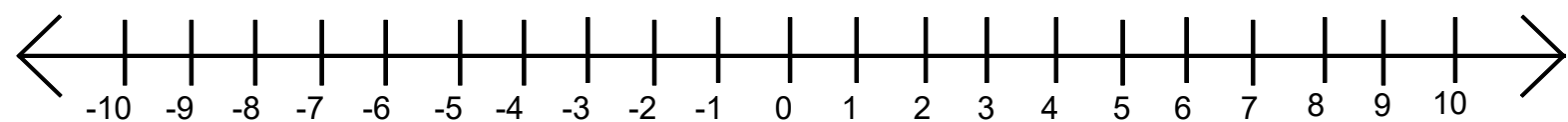
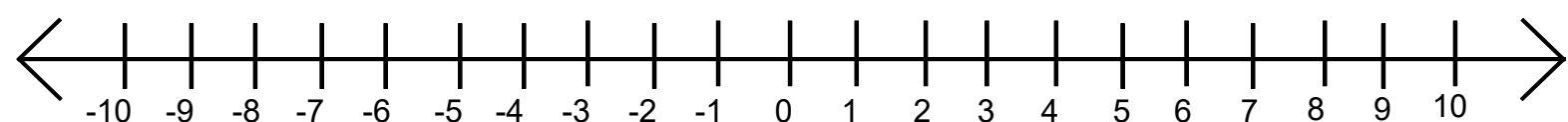
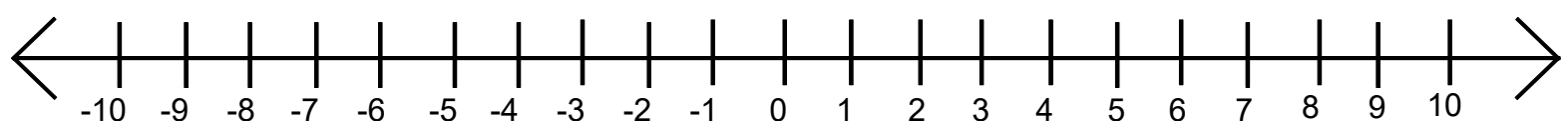
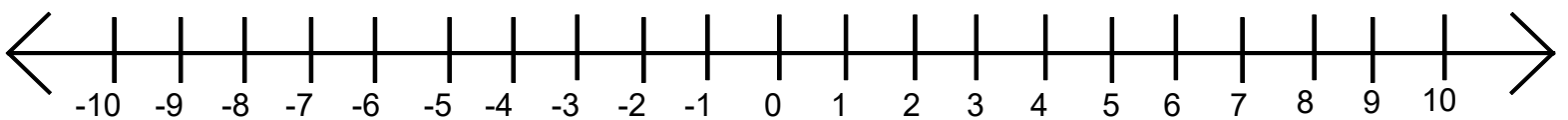
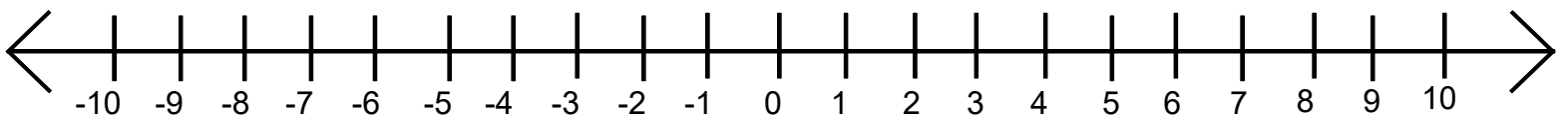
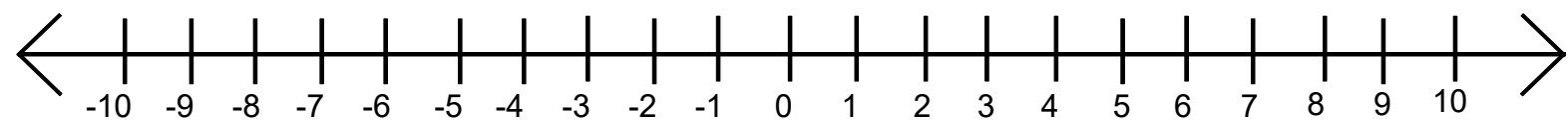
c) $(-3) + (-1) + (-1) = -5$



d) $(+4) + (-3) + (+1) = +2$



Pass sheet out to students

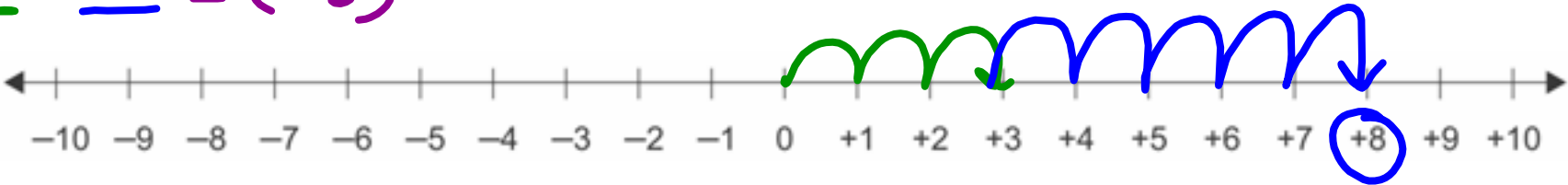


Modelling Integer Addition using Number Lines

We have modelled integer addition using algebra tiles, now we will add using number lines. Remember with number lines positive is to the right and negative is to the left.

Always start at zero

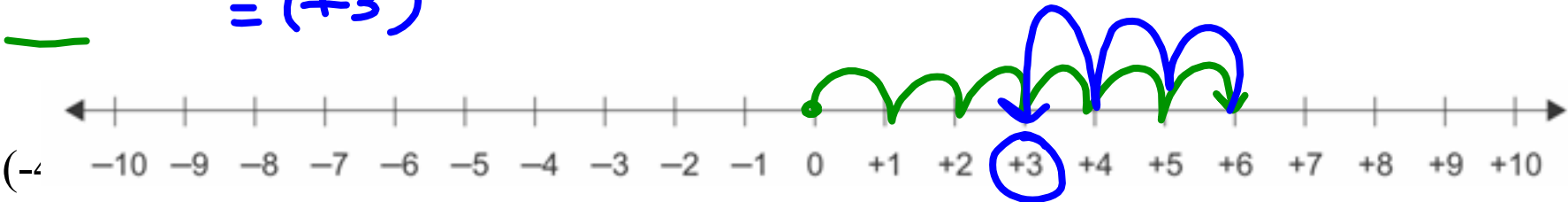
(a) $(+3) + (+5)$
 $= (+8)$



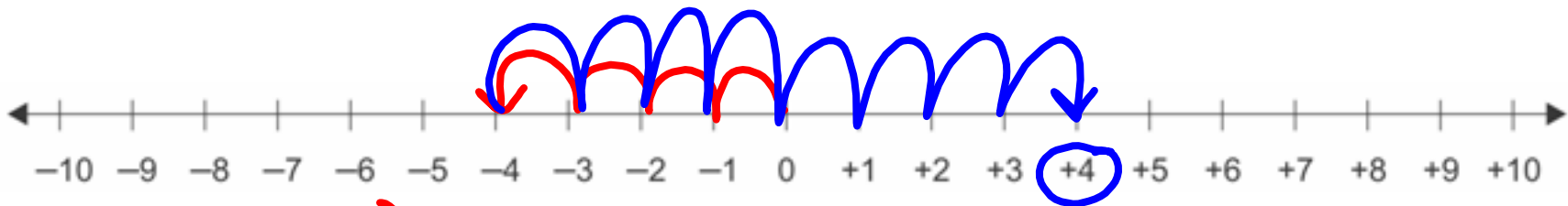
(b) $(-2) + (-4)$
 $= (-6)$



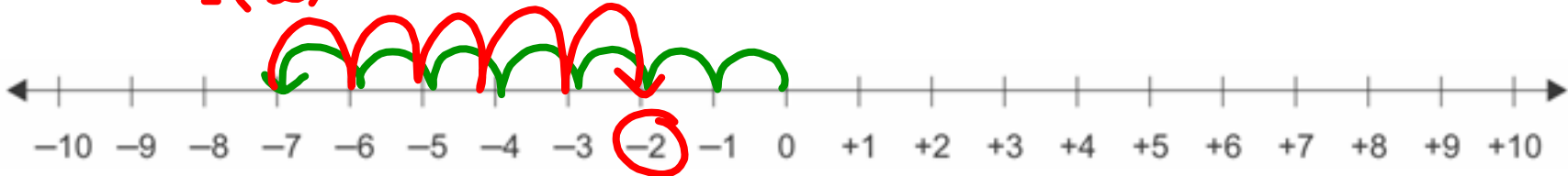
(c) $(+1) + (+2)$
 $= (+3)$



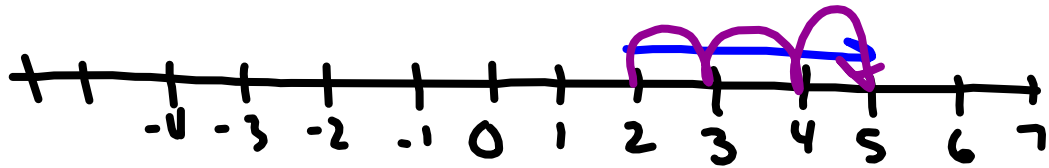
(d) $(-1) + (-3)$
 $= (-4)$



$= (-2)$

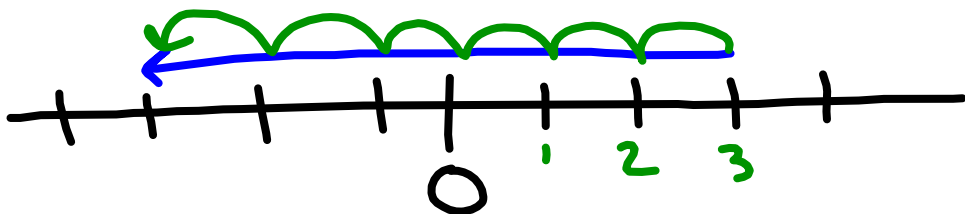


f)



Write a Sum

$(+2) + (+3) = (+5)$



$(+3) + (-6) = (-3)$

Homework pg. 62

1(a,c,e,g),

2(a,b,c),

#3(a & b but just repeat it 2b and 2c)

#4 (a,b,c)

#5

Try to figure out rules.

Have to draw number lines for #1,2

for the rest you have to have addition

Equations but don't have to draw number lines

Pg 62-63 TEXTBOOK

1. Use a number line to represent each sum.

- a) $(+1) + (+3)$
- b) $(-1) + (+3)$
- c) $(-3) + (+1)$
- d) $(-1) + (-3)$
- e) $(-3) + (-4)$
- f) $(-3) + (+4)$
- g) $(+3) + (-4)$
- h) $(+3) + (+4)$

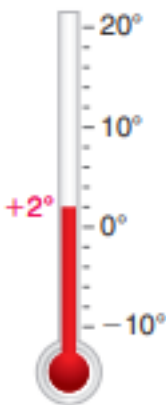
2. Use a number line to add.

- a) $(+4) + (+2)$
- b) $(+5) + (-3)$
- c) $(-4) + (-2)$
- d) $(-8) + (+2)$
- e) $(-6) + (-7)$
- f) $(+1) + (-6)$
- g) $(-5) + (+2)$
- h) $(+8) + (+4)$

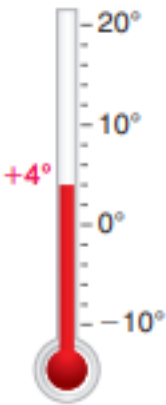
3. a) Reverse the order of the integers in question 2, then add.
b) Compare your answers to the answers in question 2.
What do you notice?
c) Make a general statement about your observations.

4. Look at these thermometers. Find each temperature after:

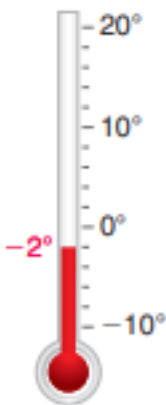
a) it falls 4°C



b) it falls 7°C



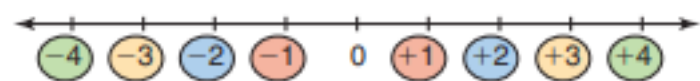
c) it rises 6°C



Pg 62-63 TEXTBOOK

- 5.** a) The temperature rises 7°C , then drops 2°C .
What is the overall change in temperature?
- b) Adrian loses \$4, then earns \$8.
Did Adrian gain or lose overall?
- c) The value of a stock went up \$3, then down \$2.
What was the final change in the value of the stock?

- 6.** Opposite integers are the same distance from 0 but are on opposite sides of 0.



- a) Write the opposite of each integer.
i) $+2$ ii) -5 iii) $+6$ iv) -8
- b) Add each integer to its opposite in part a.
- c) What do you notice about the sum of two opposite integers?

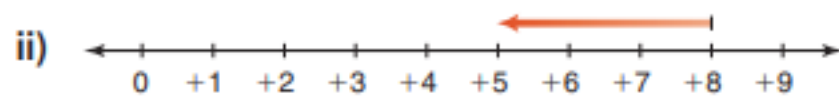
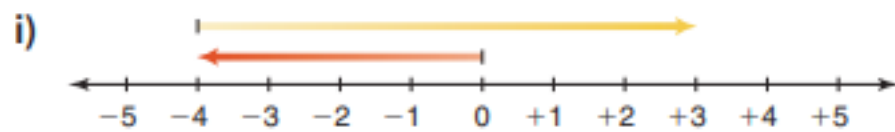
- 7.** Use a number line. For each sentence below:

- a) Write each number as an integer.
- b) Write the addition equation.
Explain your answer in words.
- i) You take 5 steps backward, then 10 steps backward.
- ii) You withdraw \$5, then deposit \$8.
- iii) A deep sea diver descends 8 m, then ascends 6 m.
- iv) A person drives a snowmobile 4 km east, then 7 km west.
- v) A person gains 6 kg, then loses 10 kg.



Pg 62-63 TEXTBOOK

8. a) Write the addition equation modelled by each number line.
b) Describe a situation that each number line could represent.



9. **Assessment Focus** Is each statement always true, sometimes true, or never true?
Use a number line to support your answers.
- a) The sum of two opposite integers is 0.
 - b) The sum of two positive integers is negative.
 - c) The sum of two negative integers is negative.
 - d) The sum of a negative integer and a positive integer is negative.