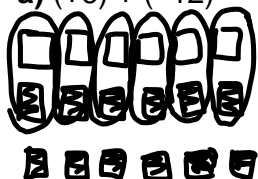


## Lesson 2.2: Adding Integers with Tiles

Use integer tiles.

1. Find each sum.

a)  $(+6) + (-12) = -6$



b)  $(-10) + (-4) = -14$



c)  $(-8) + (-9) = -17$



d)  $(+11) + (+7) = 17$



e)  $(-13) + (+5) = -8$



f)  $(+12) + (-6) = 6$



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

What does the sum represent?

a) The elevation of the base of the building is 5 m above sea level.

The building is 12 m high.

$$(5) + (12) = 17$$

b) The elevation of the base of the building is 7 m below sea level.

The building is 15 m high.

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

c) The elevation of the top of the trench is 8 m below sea level.

The trench is 10 m deep.

$$(-8) + (-10) = -18$$

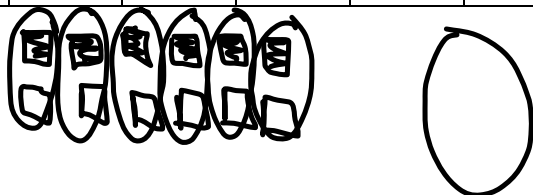
d) The elevation of the entrance to the mine is 15 m above sea level.

The mine is 450 m deep.

$$(15) + (-450) = -435$$

3. These are the scores on each hole of mini-golf. Find the total score.

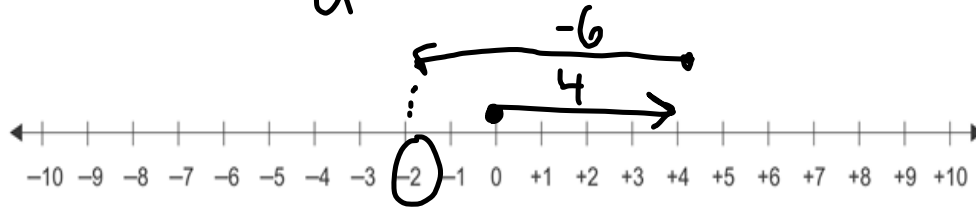
Score	-2	+1	0	+3	-1	+2	-1	0	-2
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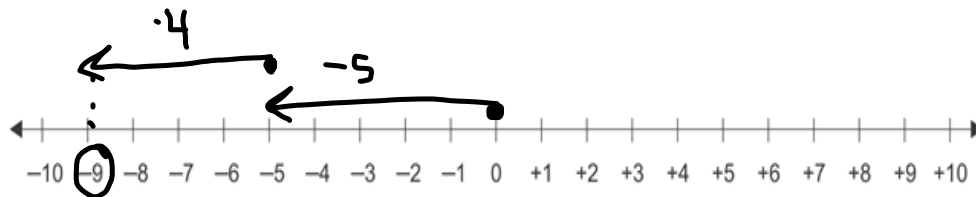
## Lesson 2.3: Adding Integers on a Number Line

1. Use a number line to add.

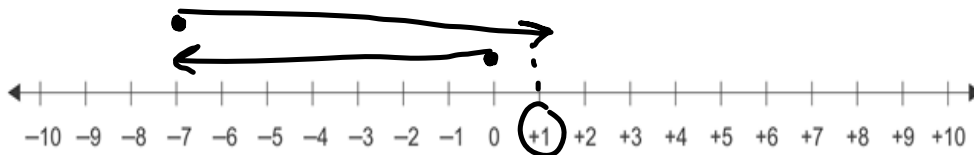
a)  $(+4) + (-6) = -2$



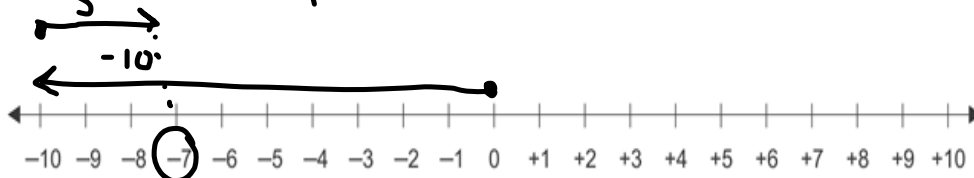
b)  $(-5) + (-4) = -9$



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



d)  $(-10) + (+3) = -7$



2. Use a pattern to find each sum.

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

$$= -1$$

b)  $(+5) + (-6)$

$$= -1$$

c)  $(-8) + (+3)$

$$= -5$$

d)  $(-6) + (+8)$

$$= 2$$

equation

3. Write an addition ~~statement~~ equation for each situation. Find the sum.  
What does the sum represent?

- a) The temperature in Victoria was  $+15^{\circ}\text{C}$  in the afternoon.  
By midnight, the temperature had dropped  $8^{\circ}\text{C}$ .

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

- b) The temperature in Calgary was  $-10^{\circ}\text{C}$ .  
A Chinook caused the temperature to rise  $12^{\circ}\text{C}$ .

$$(-10) + 12 = 2$$

- c) The temperature in Ottawa was  $-3^{\circ}\text{C}$ .  
A cold front passed and the temperature dropped  $8^{\circ}\text{C}$ .

$$(-3) + (-8) = -11$$

- d) The temperature in St. John's was  $-4^{\circ}\text{C}$  at 4 a.m.  
By noon, the temperature had risen  $10^{\circ}\text{C}$ .

$$(-4) + 10 = 6$$

4. Add.

$$\begin{aligned} \text{a)} & \underbrace{(+5) + (-12)} + (-4) \\ & = (-7) + (-4) \\ & = -11 \end{aligned}$$

$$\begin{aligned} \text{b)} & \underbrace{(-7) + (+15)} + (-12) \\ & \quad (8) + (-12) \\ & \quad -4 \end{aligned}$$

$$\begin{aligned} \text{c)} & \underbrace{(-18) + (-3)} + (+10) \\ & \quad (-21) + 10 \\ & \quad -11 \end{aligned}$$

$$\begin{aligned} \text{d)} & \underbrace{(+9) + (-6)} + (-7) \\ & \quad 3 + (-7) \\ & \quad -4 \end{aligned}$$