

Sept. 12**Warm Up Grade 7**

unit 2: day 3

1) Represent each scenario with an integer

a) You earned \$20 babysitting $+20$ b) You increased your mark by 17 points $+17$ pointsc) I am in debt \$100 -100 2) Put the following integers in order from smallest to largest~~100, 52, -68, 11, -70, -1, 5~~ $-70, -68, -1, 5, 11, 52, 100$ 3) The opposite integer to -4 is +4

Homework Solutions for 7W & 7M

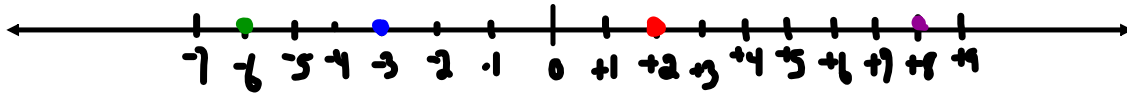
1. Mark each integer on a number line.

a) +2

b) -6

c) -3

d) +8



2. Use a positive or negative integer to represent each situation.

a) The water level rises 4 cm after a low tide.

b) The average temperature close to the South Pole is 50°C below 0°C .

c) You earned \$19 since yesterday.

d) The time is 11 s before blast-off.

e) You walk down 7 stairs.

f) You ride up 6 floors on an elevator.

g) The golfer took 3 strokes fewer than par.

2a) +4 b) -50 c) +19 d) -11 e) -7 f) +6 g) -3

4. Order the integers in each set from least to greatest.

a) +5, -3, +4

b) 0, +6, -6

c) +6, -6, +5, +3, -3

d) -8, +9, -10, +11, -12

e) 0, +2, -3, +4, -6

f) -30, +25, -12, -5, +7

a) -3, +4, +5

b) -6, 0, +6

c) -6, -3, +3, +5, +6

d) -12, -10, -8, +9, +11

e) -6, -3, 0, +2, +4

f) -30, -12, -5, +7, +25

5. Copy each statement. Use $<$ or $>$ to show which number in each pair is greater. Use a number line if it helps.

a) $+2 \leq +8$ b) $0 \geq -5$ c) $-7 \leq 0$ d) $+250 \geq -251$ e) $-100 \leq -70$ f) $-361 \leq -360$

Homework Solutions for 7W & 7M



1) Put the following integers in order from smallest to largest.

a) 28, 7, -9, 0, -72, -15, -27, 11, 52
 -72, -27, -15, -9, 0, +7, +11, +28, +52

1b) -3, 10, 2, 11, 0
 -3, 0, +2, +10, +11

2) Put a + or - in front of each number to represent the scenario.

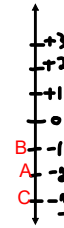
- a. Water boils: 100°C +100
- b. Frozen oxygen: 218°C -218
- c. Normal body temp.: 37°C +37
- d. Descend 3 stairs: 3 -3
- e. Increase by 7: 7 +7

3) Diver A is 2 m below sea level.

Diver B is 1 m below sea level.

Diver C is 3 m below sea level.

a) Draw a vertical number line to show the location of the divers.



b) Which diver is farthest from the surface? Explain your thinking.
 C is the furthest from the surface since he is below A and B.

4) Use a number line to help answer the following:

Put a <, > or = in the box

- a) 6 < 9 b) 1 > -3 c) 0 < 7 d) -4 > -6 e) -2 > -5 f) -7 < 0

5) a) List the integers between -9 and 4.

-8, -7, -6, -5, -4, -3, -2, -1, 0, 1, 2, 3

a) List the negative integers that are greater than -9

-8, -7, -6, -5, -4, -3, -2, -1

b) List the positive integers less than 4

1, 2, 3

c) Does zero appear in either list in (a) or (b) why or why not?

No because zero is neither + or - (has no sign)

6) Which of the following is true or false? (Briefly explain your reasoning)

a. The greatest negative integer is -1 (True)

Negative Integers are negative whole numbers so -1 is next to zero thus it is the greatest negative (closest to the positive number makes it the greatest negative)

b. Positive integers are less than negative integers. (False)

Think if I owe \$5 it is less than having \$2 in my pocket (-5 < 2)
 Positive integers are GREATER than negative integers

c. Any negative integer is always less than 0. (True)

Owing nothing is better than owing any amount of money
 -(#) < 0

d. The greater the digit, the greater the value. (False)

2 digit $\begin{array}{r} 10 \\ -17 \end{array}$ $\begin{array}{r} 123 \\ -100 \end{array}$ $\begin{array}{r} 2111 \\ -5617 \end{array}$ 4 digit

The greater the digit of negative number the SMALLER the number

- 5627 < 10

7W

Grade 7 Worksheet: Review Of Integers Continued

Solutions

1) Use the number line to decode the numbers into words.

a. ^B+2, ^U-2, ^Y+4 b. **G O L D** +3, -4, 0, -1

M C P X O A U D L S B G Y M Q

2) Copy. Use > or < to make a true statement.

a. +6 > +2 b. -6 < +2 c. -6 < -2

d. +6 > -2 e. -8 < -5 f. -3 < +10

3) Arrange from least to greatest.

a. +2, -1, 0, +8, -5 -5, -1, 0, +2, +8

b. -7, +1, -4, 7, +2 -7, -4, +1, +2, +7

c. 0, +9, -6, +4, -1 -6, -1, 0, +4, +9

4) Arrange from greatest to least.

a. +1, -4, +5, -8, -3 +5, +1, -3, -4, -8

b. +3, 0, -3, +4, -7 +4, +3, 0, -3, -7

c. -5, 7, -4, -6, 0 +7, 0, -4, -5, -6

5) A thermometer shows a vertical number line. The temperatures in the chart were read from a thermometer in Yellowknife.

Date	High temperature	Low temperature
Jan. 1	-8°C	-18°C
Mar. 1	-24°C	-31°C
May 1	+11°C	0°C
July 1	+20°C	+11°C
Nov. 1	-5°C	-10°C

a. Which day was coldest? **March 1**

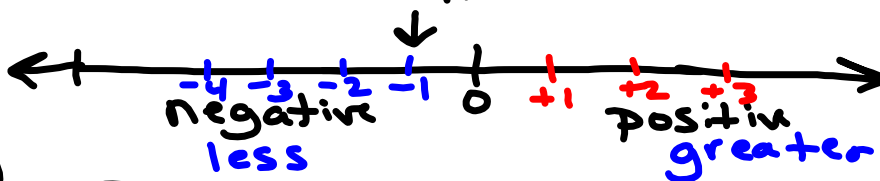
b. Which day was warmest? **July 1**

c. Was it warmer on Jan. 1 or Nov. 1? **Nov. 1**

d. Was it colder on Mar. 1 or Nov. 1? **March 1**

Try

6a) The greatest negative integer is -1 .



b) Positive integers are less than negative. (False)

c) True

d) The greater the digit, the greater the value.
False, depends on sign

$-2 > -22$
greater

Quiz (Friday)
Similar to the warm up and worksheet

Integers

(# line, scenarios, $<$, $>$, $=$, model)

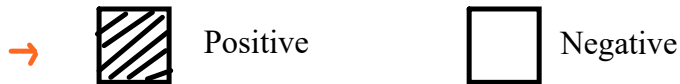
Modeling Integers using Algebra Tiles

Algebra tiles will be used later in math, right now we will only use the -1 and the +1

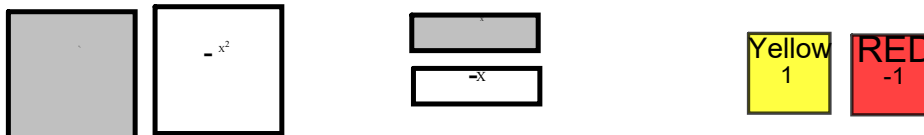


The tiles we use, yellow represents the positive and red represents the negative. Some tiles may have different colors.

When drawing the tiles, we say shaded is positive and unshaded is negative. It does not matter if you use circles or squares.

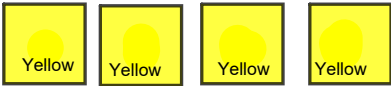
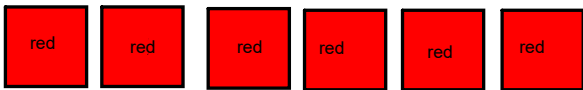
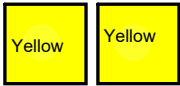
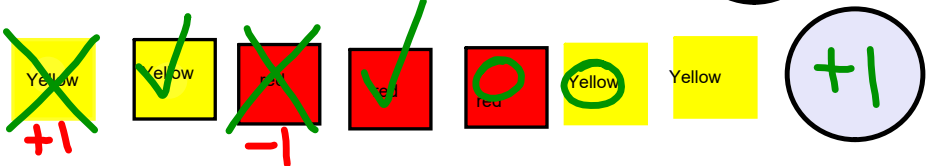
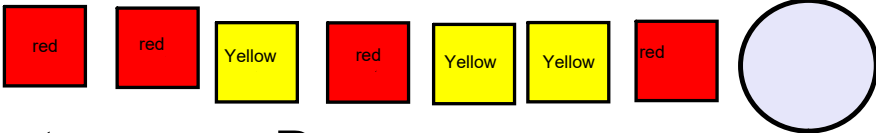


The Zero Concept - The same positive and a negative together will always give 0.





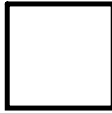
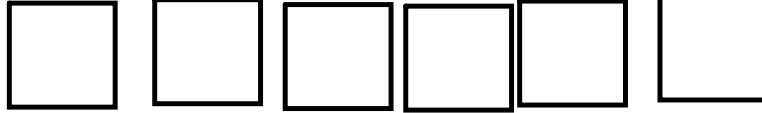
What it looks like in the Textbook...

Give the integer represented by each of the following:

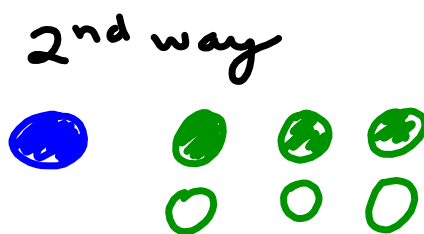
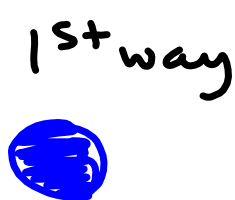
- (a)  +4
- (b)  -6
- (c)  +2
- (d)  +1
- (e) 



What we can Draw...

- a)  a) 
- b)  (b) 

Model +1 in 2 different ways
(shaded \Rightarrow + , unshaded \Rightarrow -)



On Quiz Friday

We can model any integer in many ways

Shaded $\Rightarrow +$
 unshaded $\Rightarrow -$

HOW ?

By including zero pairs

remember



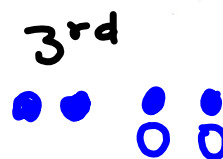
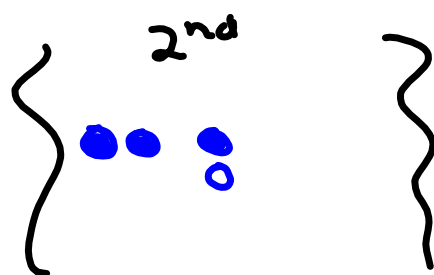
Positive



Negative



Ex) Model +2 in three ways



Model each of the following using the given of tiles:

(a) -3 using 5 tiles



(b) -1 using 7 tiles



(c) +2 using 6 tiles



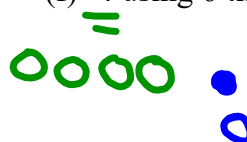
(d) +3 using 9 tiles



(e) 0 using 8 tiles



(f) -4 using 6 tiles



Model each of the following using the given of tiles:

(a) -3 using 5 tiles

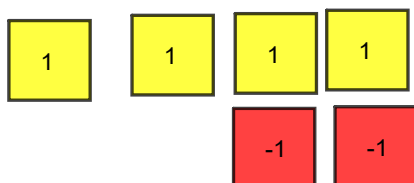


Solution

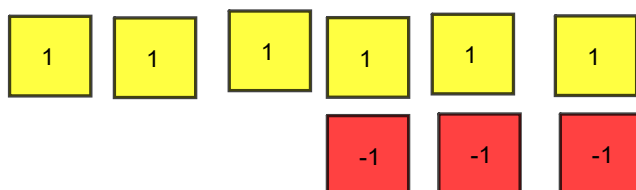
(b) -1 using 7 tiles



(c) +2 using 6 tiles



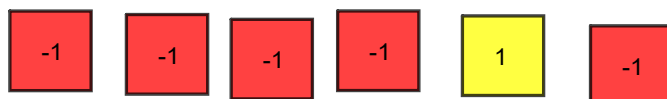
(d) +3 using 9 tiles



(e) 0 using 8 tiles



(f) -4 using 6 tiles



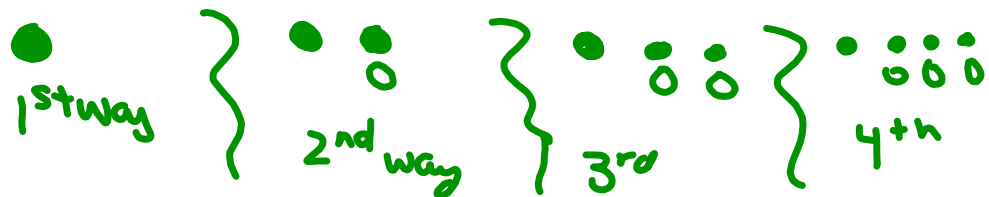
Homework pg. 54 # 1,2(a, ~~1,2~~),4(a,b,c), 7

Quiz Friday
Similar to warm ups

Hint #4c use a chart to help answer

	Number of Yellow(shaded)	Number of red(unShaded)	Integer Modelled
1 st	1	0	+1
2 nd	2	1	+1
3 rd	3	2	+1
4 th	4	3	+1

4a) +1



b) Infinite amount of zero can be add (so many way)

7) deposit