

September 3, 2014 <sup>1<sup>st</sup></sup>  
<sub>2<sup>nd</sup></sub>  
Starter

Find the next 2 numbers in each sequence.

- 0, 1, 3, 6, 10, 15, 21
- 1, 2, 4, 7, 11, \_\_\_\_\_
- 32, 29, 26, 23, 20, \_\_\_\_\_
- 10, 12, 16, 22, 30, \_\_\_\_\_
- 6, 6, 9, 9, 12, \_\_\_\_\_
- 10, 1, 11, 2, 12, \_\_\_\_\_
- 3, 4, 7, 12, 19, \_\_\_\_\_
- 4, 4, 5, 6, 6, 8, \_\_\_\_\_
- 3, 21, 4, 20, 6, 18, \_\_\_\_\_
- 8, 6, 7, 5, 6, 4, \_\_\_\_\_



## 9/3 - Adding Integers using Rules

With your partner, answer each of the following:

Is the sum of 2 integers positive, negative or zero?  
How can you tell?

If the #'s are additive inverses, ○

Both the same sign, keep it!

If there is one + and one —,  
keep the sign of the one that  
is greater

### **Adding Integers with the Same Sign**

**Words** Add the absolute values of the integers. Then use the common sign.

**Numbers**  $2 + 5 = 7$        $-2 + (-5) = -7$

**Write the rule in your own words:**

Add the 2 #'s  
Use the same sign

### Adding Integers with Different Signs

**Words** Subtract the lesser absolute value from the greater absolute value. Then use the sign of the integer with the greater absolute value.

**Numbers**  $8 + (-10) = -2$     $-13 + 17 = 4$

**Write this rule in your own words:**

Subtract the |numbers|  
Keep the sign of  
the bigger (#)

### Additive Inverse Property

**Words** The sum of an integer and its **additive inverse**, or opposite, is 0.

**Numbers**  $6 + (-6) = 0$      $-25 + 25 = 0$     **Algebra**  $a + (-a) = 0$

**Write this rule in your own words:**

$$\# + (-\#) = 0$$

A number and its opposite  
add to equal 0

## On Your Own

Add.

$$4. -2 + 11 = 9$$

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

$$6. 9 + (-10) = -1$$

$$7. -8 + 4 = -4$$

$$8. 7 + (-7) = 0$$

$$9. -31 + 31 = 0$$

Three questions to ask yourself on every one:

1. Are the signs the same or different?

2. Do I add or subtract?

3. Is the answer positive or negative?

## Real life connections:

Write an expression for what is given then compute it.  
Remember labels in your answers.

**BANKING** Your bank account has a balance of  $-\$12$ . You deposit  $\$60$ .  
What is your new balance?

$$60 + (-12) = \$48$$
$$-12 + 60 = \$48$$

**TEMPERATURE** The temperature is  $-3^{\circ}\text{F}$  at ~~7:00 a.m.~~ During the next 4 hours,  
the temperature increases  $21^{\circ}\text{F}$ . What is the temperature at ~~11:00 a.m.?~~

$$-3 + 21 = 18^{\circ}\text{F}$$

What if... a + b + c + d  
...there are more than 2 numbers?

$$\begin{aligned} 7 + (-12) + (-7) \\ \xrightarrow{\text{orange}} \\ = -5 + (-7) \\ = -12 \end{aligned}$$

$$\begin{aligned} \cancel{7} + (-12) + \cancel{(-7)} \\ = -12 \\ \text{Commutative} \\ \text{property} \end{aligned}$$

$$\begin{aligned} \underline{-12 + 25} + (-15) \\ = 13 + (-15) \\ = -2 \end{aligned}$$

$$\begin{aligned} \underline{-12} + 25 + \underline{(-15)} \\ = -27 + 25 \\ = -2 \end{aligned}$$

$$\begin{aligned} \underline{6 + (-9)} + 14 \\ = -3 + 14 \\ = 11 \end{aligned}$$

$$\begin{aligned} 6 + \underline{(-9) + 14} \\ = 6 + 5 \\ = 11 \end{aligned}$$



Homework  
Buff WS Practice B

Due Friday