

Warm Up

9/5/18

1. Evaluate: $|12 - 8| + |-15 + -2| - 7$

$$\begin{aligned} & |4| + |-17| - 7 \\ & 4 + 17 - 7 \\ & 21 - 7 \\ & \boxed{14} \end{aligned}$$

2. Simplify: $17.28 \div 5.4$

$$\begin{array}{r} 3.2 \\ 5.4 \overline{) 17.28} \\ \underline{16.2} \\ 1.08 \\ \underline{1.08} \\ 0 \end{array} \quad \boxed{3.2}$$

3. Order from least to greatest:

~~0.9~~ , ~~2~~ , ~~-1.2~~ , ~~0.37~~ , ~~1~~ , ~~-0.75~~ , ~~$0.\overline{6}$~~

0.4 $0.\overline{3}$ 0.37
 $0.333\ldots$

$$-1.2, -0.75, \frac{1}{3}, 0.37, \frac{2}{5}, 0.\overline{6}$$

0.9

ADDING INTEGERS

+++++





Addition



$$(+)+(+)$$

Answer will be positive

$$(-)+(-)$$



Answer will be: negative

$$(+)+(-)$$

Answer will vary

(Take the sign of the larger absolute value)



Do the numbers have the ***SAME*** SIGN?

YES - Same Signs:
Find the **SUM**:

NO - Different signs:
Find the
DIFFERENCE:

$$(-3) + (-6) = (-9)$$

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

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

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

Either way: Keep the sign of the ***LARGER**** number.

Let's Try Some!!!!!!!

$$3 + 4 = 7$$

$$-5 + 9 = 4$$

$$7 + -9 = -2$$

$$-10 + 8 = -2$$

$$21 + -3 = 18$$

$$-4 + -12 = -16$$

$$-2 + -4 = -6$$

$$0 + -30 = -30$$

$$-18 + -9 = -27$$

SUBTRACTING INTEGERS



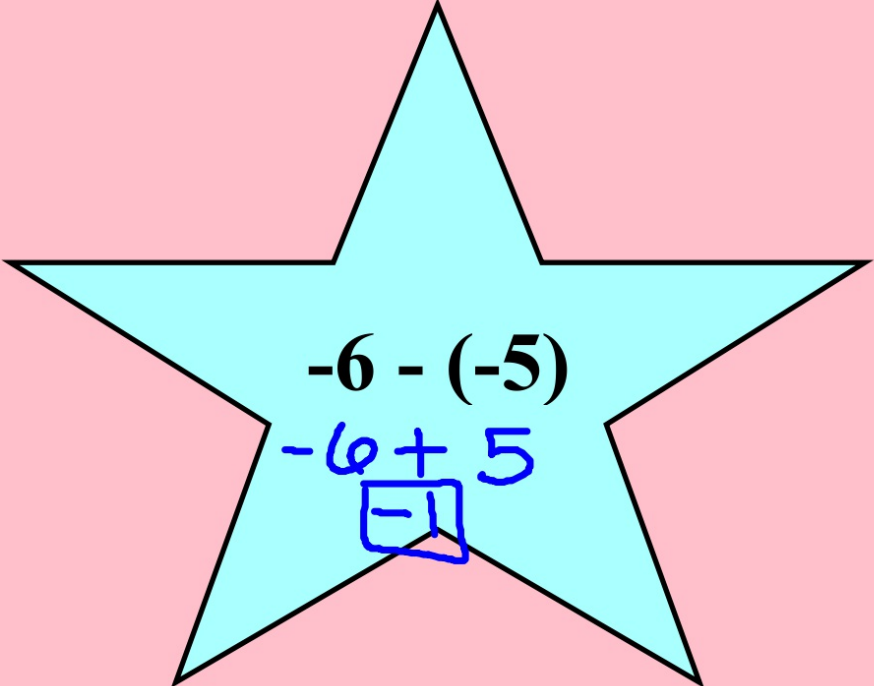
Keep - Change - Change

Keep the first # the same

Change subtraction sign to
addition sign

Change the sign of the
second #

Let's try
"Keep-
Change-
Change"
with this
example:


$$\begin{array}{l} -6 - (-5) \\ -6 + 5 \\ \boxed{-1} \end{array}$$

$$\mathbf{-6 - (-5)}$$

Step 1: Keep the sign of the first number

-6 stays -6

$$\mathbf{-6 - (-5)}$$

Step 2: Change subtraction sign into an addition sign

$$\mathbf{-6 + (-5)}$$

Step 3: Change the sign of the second number

$$\mathbf{-6 + 5}$$

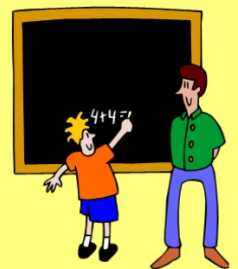
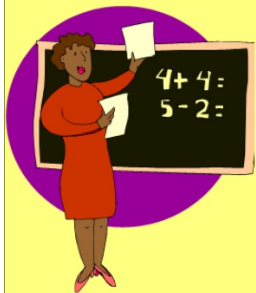
So then we have... $-6 + 5 = -1$

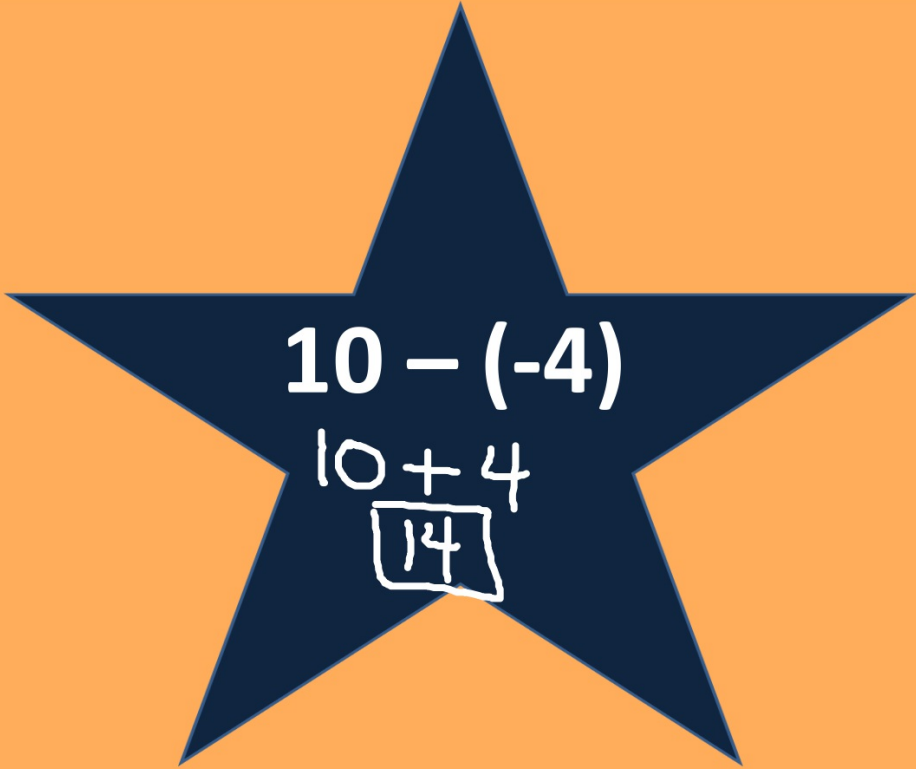
ADD THE OPPOSITE

2 Steps:

1) *Change the subtraction sign (-) to an addition sign (+)*

2) *Change the sign (+/ -) of the second integer*




$$10 - (-4)$$

$$10 + 4$$

$$\boxed{14}$$

Integer Multiplication and Division



INTEGER MULTIPLICATION & DIVISION

SAME signs...
Equals a POSITIVE

$$+ \times + = +$$

$$- \times - = +$$

DIFFERENT signs...
Equals a NEGATIVE

$$+ \times - = -$$

$$- \times + = -$$

A Way To Remember the Signs for Multiplying and Dividing

Think of shoes....

Do they match? Or do you have one of each?

MATCHING



NOT MATCHING



When shoes match...that is a POSITIVE thing
When shoes don't match...that is a NEGATIVE thing
SAME GOES WITH THE SIGNS OF YOUR INTEGERS!!!!

$$\mathbf{-8(-10)=80}$$

$$-8(10)=-80$$

$$8(-10)=-80$$

$$8(10)=80$$

$$\begin{array}{r} -49 \\ \hline -7 \end{array}$$

$$21 + (+35)$$

56

$$\frac{-105}{5} = -21$$

$$-4(50) = -200$$

$$-4 + -18$$

$$-22$$

$$-8(-6) \quad 48$$

-100(8)

500

$$-17 + 9$$

-8

$$-3(-12)$$

$$36$$

$$16(-4) = -64$$

$$16 + (+4)$$

20

$$\frac{72}{-9}$$

$$-8$$

$$\frac{-84}{21}$$

$$-4$$

0(-6)



$$\frac{-144}{-12}$$

12

$$(-60) - (-5)$$

$$-60 + 5 = -55$$

$$\mathbf{-12 - 4}$$

$$-12 + -4$$

$$-16$$

$$\begin{array}{r} \underline{35} \\ -7 \end{array}$$

$$-5$$

$$9(-11) = -99$$

$$\begin{array}{r} \underline{150} \\ -25 \end{array}$$

$$-6$$

EXIT TICKET

<https://goo.gl/forms/fA39fFabrRhKR9B273>