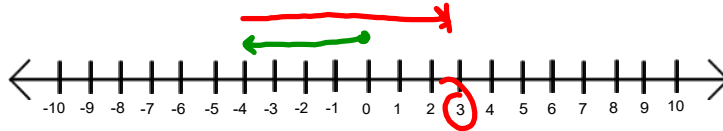


Warm Up Grade 7

1) Add with modelling (use a number line OR tiles): $(-4) + (+7) = +3$



2) Add without modelling: $(-10) + (-6)$

$$\begin{array}{r}
 (-10) + (+6) \\
 10 - 6 \\
 \hline
 -4
 \end{array}$$

-16

TODAY: SUBTRACTING INTEGERS

Difference between adding integers & subtracting integers??

- It's almost the same..

Rules for subtracting Integers

YOU'RE ACTUALLY NOT SUBTRACTING!

- K-A-O = keep, add, opposite.

Step 1 $(+5) - (-3)$

Keep this number (points to +5)

Make this the opposite sign (points to -)

Change this to add (points to -3)

Step 2 $(+5) + (+3)$

Step 3 $(+8)$

(answer)

★ Note: Always show your work!

In other words: Add the Opposite

Examples:

$$(+9) - (-2)$$

$$(+9) + (+2) = +11$$



$$(-15) - (+5)$$

$$(-15) + (-5) = -20$$



$$(+12) - (+16)$$

$$(+12) + (-16) = -4$$



Whenever you do subtracting integers questions you have to show the second step as done above.

Lets try these following the steps:

1. Keep the first integer
2. Change subtraction to addition
3. Make the second number opposite sign

(a) $(+7) - (-8)$

$$\begin{array}{r} (+7) + (+8) \\ +15 \end{array}$$

(b) $(-6) - (+8)$

$$\begin{array}{r} (-6) + (-8) \\ -14 \end{array}$$

(c) $(-3) - (-3)$

$$\begin{array}{r} (-3) + (+3) \\ 0 \end{array}$$

(d) $(+7) - (+7)$

$$\begin{array}{r} (+7) + (-7) \\ 0 \end{array}$$

Your Turn!

A) $(-4) - (-6) =$

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

C) $(+3) - (-1) =$

(a) $(-4) - (-6)$

$$\begin{array}{r} (-4) + (+6) \\ +2 \end{array}$$

(b) $(+7) - (-8)$

$$\begin{array}{r} (+7) + (+8) \\ +15 \end{array}$$

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

$$\begin{array}{r} (+3) + (+1) \\ +4 \end{array}$$

Subtracting Integers using modeling

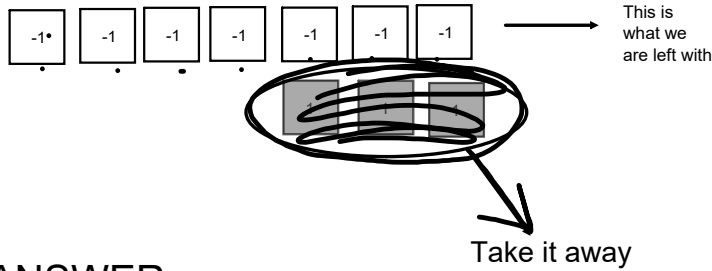
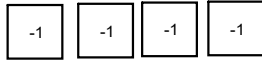
- "Fancy" zero's = creating zero pairs



Modelling Subtraction

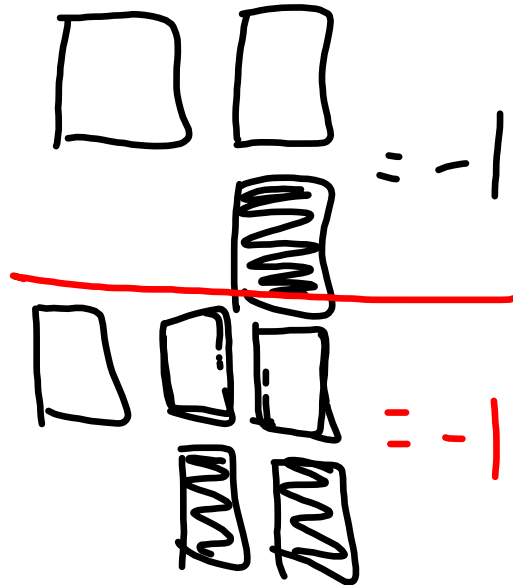
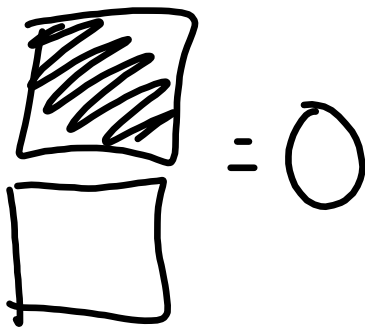
Example:

$(-4) - (+3) = ?$

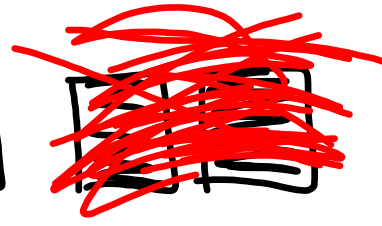
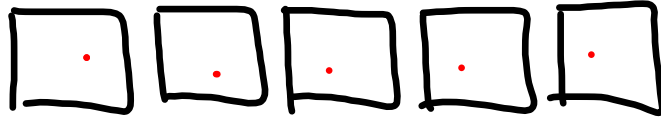


ANSWER:

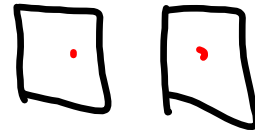
$(-4) - (+3) = -7$



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

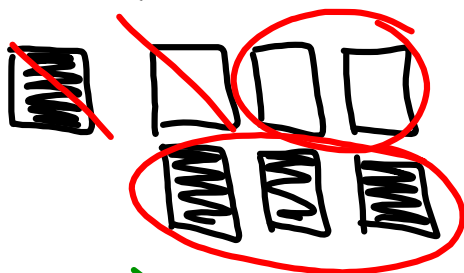


-7



4

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



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



Your Turn - MODEL

$$(+5) - (+3)$$

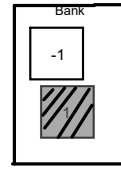
$$(-8) - (-4)$$

$$(-6) - (-5)$$

$$(-4) - (-6)$$

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

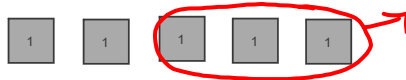
$$(+1) - (-3)$$



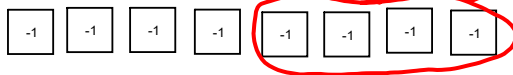
SOLUTIONS

Subtracting Integers using modeling

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



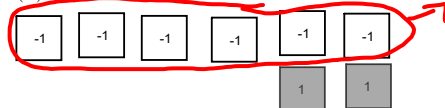
$$(-8) - (-4) = -4$$



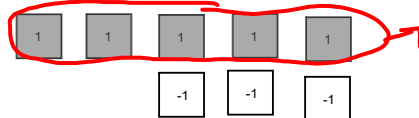
$$(-6) - (-5) = -1$$



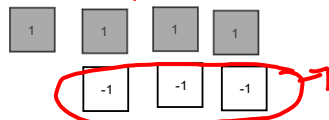
$$(-4) - (-6) = +2$$



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



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



Homework!

Worksheet

Attachments

gr 7 u2 int adding integers quiz V1 V2.notebook