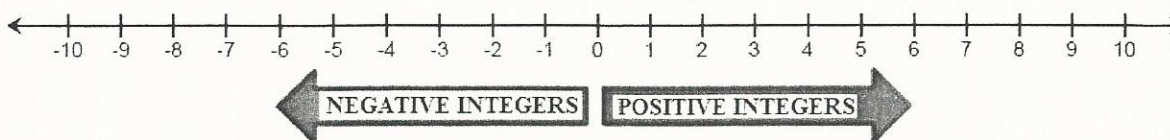


NEGATIVE AND POSITIVE NUMBERS



IMPORTANT THINGS TO REMEMBER

- The absolute value of a number is its distance from zero on the number line. Distance is always positive.
- The farther to the left on the number line a number is, the smaller it is.
- Zero is neither positive nor negative.
- The opposite of a positive number is negative.
- The opposite of a negative number is positive.
- Any number without a sign is positive.
- Two negatives in a row simplify to a positive. $-(-) = +$
- It does not matter whether a negative sign is in the numerator, the denominator or out in front of a fraction. All three forms represent the same number. $\frac{-4}{7} = \frac{4}{-7} = -\frac{4}{7}$
- The negative/minus sign ($-$) indicates both subtraction AND a negative number.

The Expression

Should Be Read As...

(-5)	negative five
8	positive eight
$-3 - 2$	negative three minus positive two
$6 - (-4)$	positive six minus negative four
$-7 - (-1)$	negative seven minus negative one

To Add Negatives and Positives

If the signs are the same: add the absolute values and keep the same sign.

Problem: Add $(+3)$ and $(+8)$ Do: $3+8=11$. The result is $+11$.

Add (-7) and (-5) Do: $7+5=12$. The result is -12 .

If the signs are different: Take the difference of the absolute values. Use the sign of the number with the largest absolute value.

Problem: Add $(+1)$ and (-6) Do: $6 - 1 = 5$. The result is -5 because the 6 is negative.

Add (-2) and $(+9)$ Do: $9 - 2 = 7$. The result is $+7$ because the 9 is positive.

More Negative and Positive Information on the back.

NEGATIVE AND POSTIVE NUMBERS (CONT.)

To Subtract Negatives and Positives:

Change the problem to addition by inserting a plus sign or simplifying.

$$\begin{array}{r} 7 - 1 \\ 7 + (-1) \\ 6 \end{array}$$

$$\begin{array}{r} 4 - (-9) \\ 4 + 9 \\ 13 \end{array}$$

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

$$\begin{array}{r} -3 - (-2) \\ -3 + 2 \\ -1 \end{array}$$

To Multiply or Divide Negatives and Positives:

If two numbers have the same sign, the result is positive.

$$5 \cdot 3 = 15$$

$$-5 \cdot (-3) = 15$$

$$6 \div 2 = 3$$

$$\frac{-6}{-2} = 3$$

If two numbers have different signs, the result is negative.

$$-8 \cdot 4 = -32$$

$$7 \cdot (-1) = -7$$

$$9 \div (-3) = -3$$

$$\frac{-8}{4} = -2$$