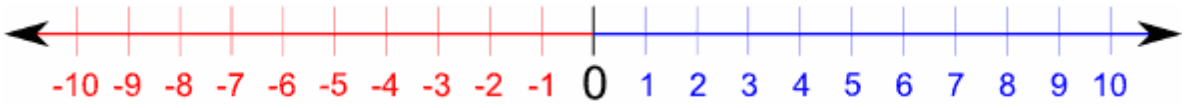
Math 4. Classwork # 10.

Numbers Can be Positive or Negative:



Negative Numbers (-) Positive Numbers (+)

1. Find the opposite number

Number	Opposite number
a	
4	
-20	
-a	
-(-a)	
-(-(-a))	

2. Compare

$-4 \quad 4$ $\qquad$ $6 \quad -4$ $\qquad$ $\frac{2}{3} \quad -\frac{3}{2}$

$-4 \quad -2$ $\qquad$ $-4 \quad 0$ $\qquad$ $-\frac{2}{3} \quad -1$

$-4 \quad -6$ $\qquad$ $-1 \quad -\frac{1}{2}$ $\qquad$ $-2 \quad \frac{1}{2}$

3. Compute:

$3 + (-2) =$ $\qquad$ $3 + (+2) =$ $\qquad$ $-3 - (-2) =$

$3 - (+2) =$ $\qquad$ $-3 + (-2) =$ $\qquad$ $-3 + (+2) =$

$3 - (-2) =$ $\qquad$ $-3 - (+2) =$ $\qquad$ $-3 + (+3) =$

4. **Compare without calculation**.

$100 - (35 - 20)$ $100 - (35 + 20)$ $100 + (35 - 20)$ $100 + (35 + 20)$

$100 - (-35 - 20)$ $100 - (-35 + 20)$ $100 + (-35 - 20)$ $100 + (-35 + 20)$

5. **Rewrite without parenthesis:**

$20 + (2 - 3) =$ $20 - (-2 + 3) =$

$20 - (2 - 3) =$ $20 - \big(-2 + (-3)\big) =$

6. Positive or negative number will be the product of
   a) Two negative and one positive numbers.
   b) One negative and two positive numbers
   c) Three negative numbers.

7. A swimming pool can be filed by one pipe in 10 hours or by another pipe in 15 hours. How long it will take to fill up the pool with both pipes opened?

8. A swimming pool can be filed with one pipe in 10 hours. When full, the pool can be drained out with another pipe in 20 hours. How long it will take to fill up the pool if the drain pipe is open?

System of equations

$$\begin{cases} 4x+5y=11 \\ x-y=5 \end{cases} \qquad \begin{cases} x+y=5 \\ 2x-y=7 \end{cases}$$