

Name: _____

Date: _____

Notes

Algebra Section 2.3

Pages 80-84



Goal: "Subtract positive and negative numbers"

Subtraction:

When subtracting with negative numbers add the opposite. (boop boop/leave change opposite)

Examples:

$$\begin{aligned} -9 - 5 &= \\ -9 + (-5) &= -14 \end{aligned}$$

$$\begin{aligned} -6 - (-4) &= \\ -6 + 4 &= -2 \end{aligned}$$

$$\begin{aligned} -4 - (-9) &= \\ -4 + 9 &= 5 \end{aligned}$$

$$\begin{aligned} 2 - (-7) &= \\ 2 + 7 &= 9 \end{aligned}$$

Try These:

$$\begin{aligned} -6 - 3 &= \\ -6 + (-3) &= -9 \end{aligned}$$

$$\begin{aligned} -9 - (-2) &= \\ -9 + 2 &= -7 \end{aligned}$$

$$\begin{aligned} 12 - (-4) &= \\ 12 + 4 &= 16 \end{aligned}$$

$$\begin{aligned} -3 - (-4) &= \\ -3 + 4 &= 1 \end{aligned}$$

$$\begin{aligned} -14 - 18 &= \\ -14 + (-18) &= -32 \end{aligned}$$

$$\begin{aligned} -20 - (-24) &= \\ -20 + 24 &= 4 \end{aligned}$$

$$\begin{aligned} 15 - (-19) &= \\ 15 + 19 &= 34 \end{aligned}$$

$$\begin{aligned} 23 - (-18) &= \\ 23 + 18 &= 41 \end{aligned}$$

$$\begin{aligned} -24 - (-34) &= \\ -24 + 34 &= 10 \end{aligned}$$

$$\begin{aligned} 274 - (-452) &= \\ 274 + 452 &= 726 \end{aligned}$$

$$\begin{aligned} -345 - (-342) &= \\ -345 + 342 &= -3 \end{aligned}$$

$$\begin{aligned} -254 - 120 &= \\ -254 + (-120) &= -374 \end{aligned}$$

Evaluate when $x = -5$ and $y = 6$

$$\begin{aligned} \text{a) } x - y & \\ -5 - 6 & \\ -5 + (-6) &= -11 \end{aligned}$$

$$\begin{aligned} \text{b) } y - x & \\ 6 - (-5) & \\ 6 + 5 &= 11 \end{aligned}$$

$$\begin{aligned} \text{c) } y - x - 6 & \\ 6 - (-5) - 6 & \\ 6 + 5 + (-6) &= 5 \end{aligned}$$

$$\begin{aligned} \text{d) } x - y + 3 & \\ -5 - 6 + 3 & \\ -5 + (-6) + 3 &= -8 \end{aligned}$$

$$\begin{aligned} \text{e) } (x - 4) + y & \\ (-5 - 4) + 6 & \\ (-5 + (-4)) + 6 & \\ -3 & \end{aligned}$$

$$\begin{aligned} \text{f) } x + (y - 7) & \\ -5 + (6 - 7) & \\ -5 + (6 + (-7)) & \\ -6 & \end{aligned}$$

$$\begin{aligned} \text{g) } 3(y - x) & \\ 3(6 - (-5)) & \\ 3(6 + 5) & \\ 33 & \end{aligned}$$

$$\begin{aligned} \text{h) } 11 + x + y & \\ 11 + (-5) + 6 & \\ 12 & \end{aligned}$$

Word Problems:

Ex: One of the most extreme temperature changes in United States History occurred in Fairfield, Montana on December 24, 1924. At noon, the temperature was 63°F . By midnight, the temperature fell to -21°F . What was the change in temperature? 84°F