2.3: Subtracting Real Numbers

Goals: *Subtract real numbers

**You can always change subtraction to: Adding the opposite . *Then follow addition rules.

Ex: $-12 - 19$

$-12 + (-19)$
-31

Ex: $18 - (-7)$

$18 + (+7)$
25

Ex: $11.7 - (-5)$

$11.7 + (+5)$
16.7

Ex: $\frac{1}{3} - \frac{1}{2}$

$\frac{2}{6} + \left(-\frac{3}{6}\right)$

$-\frac{1}{6}$

Ex: $-9 - (-12)$

$-9 + (+12)$

3

Evaluate when $x = -2$, and $y = 7.2$

$y - x = 7.2 - (-2)$

$7.2 + 2 = 9.2$

* The number x is negative, you are subtracting a negative number.

Evaluate when $x = -3$, and $y = 5.2$

Ex: $x - y + 8$

$-3 - 5.2 + 8$
$-3 + (-5.2) + 8$
-0.2

Ex: $y - (x - 2)$

$5.2 - (-3 - 2)$
$5.2 - (-3 \pm -2)$
$5.2 - (-5)$
10.2

Ex: $(y - 4) - x$

$(5.2 - 4) - (-3)$
$(5.2 - 4) + (+3)$
$1.2 + 3$
4.2

To evaluate change subtract the new amount – original amount

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?

New – Old
$-21 - 63$
$-84°F$