2.3 Subtracting Integers

Goals: ·Subtract positive and negative numbers

1. Rewrite subtraction as ____adding_____ the opposite.
2. Follow rules for _____addition_____.

Ex: 3 – 10

3 + −10
−7

Ex: –2 – 7

−2 + −7
−9

Ex: 9 – 26

9 + −26
−17

Ex: −4 – 12

−4 + −12
−16

Ex: 8 – 13

8 + −13
−5

Ex: −3 – 15

−3 + −15
−18

1. Subtracting a negative is the same as __adding_____a ___positive_____.
2. Then following adding rules.

Ex: 2 – (–7)

2 + +9
11

Ex: –3 – (–4)

−3 + +4
1

Ex: 4 – (−6)

4 + +6
10

Ex: −15 – (−2)

−15 + +2
−13

Ex: −1 – (–11)

−1 + +11
10

Ex: −5 – (−3)

−5 + +3
−2

*****Challenges*

For each of the problems below begin by rewriting the problem but leaving blank spaces where the variables are.

Then substitute in the correct values.
Change subtraction to adding the opposite.
Follow addition rules.

Ex: $x = -5$, $y = 3$

$y - x$
$3 - (-5)$
$3 + +5$
8

Ex: $x = 4$, $y = 12$

$-y - (-x)$
$-12 - (-4)$
$-12 + +4$
-8

Ex: $x = 2$, $y = -3$, $z = -4$

$-z - x - y$
$-(-4) - 2 - (-3)$
$4 - 2 + + 3$
$2 + + 3$
5

Ex: $x = 10$, $y = 27.4$
$x - y$

__10____ − __27.4_____
$10 + -27.4$
-17.4

Ex: $r = 24.8$, $s = -32$
$r - (-s)$

__24.8_____ – (− _−32_)
$24.8 - (+32)$
$24.8 + -32$
-7.2

Ex: $-17 - (-x)$ when $x = -2.4$

$-17 - (- -2.4)$
$-17 - (+2.4)$
$-17 + (-2.4)$
-19.4

Ex: $r - y - x$
$r = 2.5$ $y = 17.2$ $x = -12$

$2.5 - 17.2 - (-12)$
$2.5 + -17.2 + + 12$
$-14.7 + 12$
-2.7