1-5 Combining Integers Name: Period:

Adding and Subtracting Integers

Adding or subtracting integers with like (same) signs, add and keep the sign.

(4 + 2 = 6) (-6 + -8 = -14) (-9 - 4 = -13) -9+(-4)

Adding or subtracting integers with different (unlike) signs, subtract and keep the sign of the larger integer.

(-6 + 3 = -3) (8 + - 4 = 4)

*when subtracting a negative, it turns into a positive and then follows one of the two rules above!

(8 - -4 = 12 becomes 8 + 4 = 12) * double negative is positive

(-8 - +4 = -4 becomes -8 + 4 = -4)

Simplify

1.) -45 + 8

Battle b/c different so subtract; 45 is bigger so answer is negative

45 - 8 = 37

-37

2.) 9 + (-26) + 3 Commutative

9+3+(-26)

12 + (-26) ← Battle 26 - 12 = 14

-14 ← 26 is bigger so NEG.

3.) 54 + (-6) + 15 + (-21)

54+15+(-6)+(-21)

69 + (-27)

69 - 27 = 42

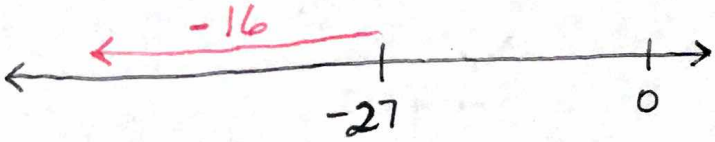
42

4.) -27 – 16

-27 + (-16)

-43

27 + 16 = 43



5.) 45 - +12)

57

6.) 8 - +9)

17

1-5 Combining Integers Name: Period:

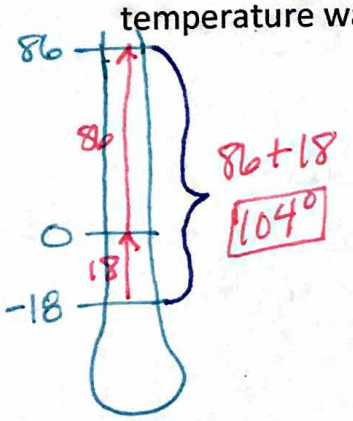
7.) A helicopter ascended 220 meters to an altitude of 300 meters. Find the original altitude.

up (+) reaching

$300 - 220 = \boxed{80 \text{ m}}$

equation: $\_\_ + 220 = 300$

8.) The winter low temperature in Frosty City was -18° F. The summer high temperature was 86° F. Find the difference between the temperatures.



$86 - (-18)$

$86 + 18$

$\boxed{104°}$

$-18 + 18 = 0$

$86 + 18$

$\boxed{104°}$

Evaluate each expression if $x = -4$, $y = -1$, and $z = 6$.

Plug in or replace #'s for letters.

9.) $z - 11$

$6 - 11$

$6 + (-11)$

$\boxed{-5}$

10.) $y - 8$

$(-1) - 8$

$(-1) + (-8)$

$\boxed{-9}$

11.) $y - z - x$

$(-1) - 6 + (+4)$

$(-1) + (-6) + 4$

$-7 + 4$

$\boxed{-3}$

12.) $x - y + z$

$(-4) - (-1) + 6$

$(-4) + 1 + 6$

$(-4) + 7$

$\boxed{3}$

$(-4) + 1 + 6$

$-3 + 6$

$\boxed{3}$