

Adding and Subtracting Integer Notes

Addition Rules:

Sum of 2 positives is positive

Sum of 2 negatives is negative

Sum of different signs, subtract the absolute value and then take the sign of the larger integer.

Subtraction Rule:

Leave, Change, Opposite

- leave the first number alone, change the sign to addition, then take the opposite of the second number. Follow addition rules.

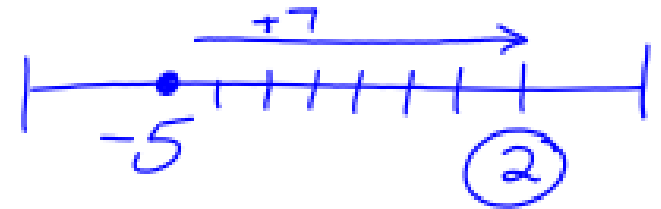
Find the sum or difference.

1) $-4 + -8$

-12

2) $-5 + 7$

2



3) $-29 + 21$

-8

4) $-12 - 4$

$-12 + -4$

-16

Find the sum or difference.

5) On February 1st, the temperature at dawn was -22°F . By noon, it had risen 19° . What was the temperature at noon?

$$+ \quad -22 + 19 = -3^{\circ}\text{F}$$

6) On January 5th, the low temperature was -6°F and the high temperature was 24°F . What was the difference in temperatures on January 5th?

$$-6 - 24 \quad \text{or} \quad 24 - -6 \quad 24 + 6$$

$$-6 + 24 \quad -30 \quad \text{Real life answer}$$

Find the sum or difference.

$$7) \quad 6 + -3 + -9 + 2$$

$$8 + -12$$

$$-4$$

Method 1

$$3 + -9 + 2$$

$$-6 + 2$$

$$-4$$

Method 2

8) The top of an iceberg is 13 feet above sea level. The bottom of the iceberg is 123 feet below sea level. What is the distance between the top and bottom of the iceberg?

$$13 - -123$$

$$13 + 123 = 136 \text{ feet}$$

The word "difference" can be substituted for "distance" which explains this is a subtraction problem.