Algebra 1A 2.3

Add integers

integer opposite (additive inverse)

algebra tiles activ: enter with integers

Examples

Find each sum.

1 4+5 = 9

4 + 5 = 9 Both numbers are positive, so the sum is positive.

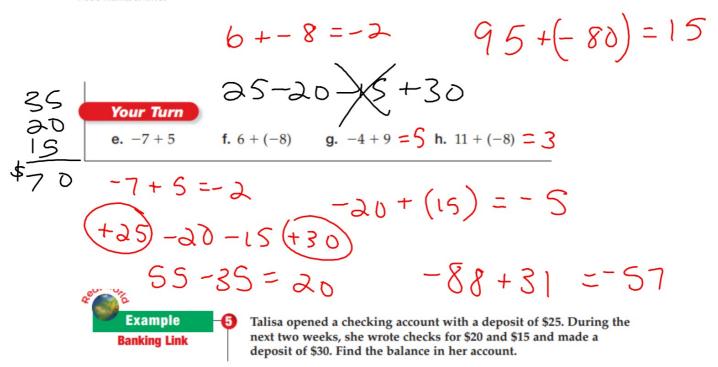
2 −6 + (−2) = − 8

-6 + (-2) = -8 Both numbers are negative, so the sum is negative.

Your Turn

a. 8+9=7 b. -2+(-4) c. -5+(-10) d. 11+6

Also number line:



Example

Simplify 5x + (-3x). -2

$$5x + (-3x) = \underbrace{[5 + (-3)]}_{x}$$
 Use the Distributive Property.
= $\underbrace{2x}$ $5 + (-3) = 2$

Your Turn

Simplify each expression.

i.
$$-8y + 3y$$

$$6m + 4m + (-2m)$$

Simplify each expression.
i.
$$-8y + 3y$$
 j. $6m + 4m + (-2m)$ k. $-5x + 4x = -1$

Getting Ready

Tell whether each sum is positive or negative.

Sample 1: -4 + (-3)

Sample 2: −9 + 11

Solution: Both integers are

Solution: |11| > |-9|, so

negative, so the sum_

the sum is positive.

is negative.

5. 5 + 12

6.
$$12 + (-15)$$

10 0 1 12

8. -3 + 9

9.
$$-5 + (-2)$$

10000

-3x + 3x = 0

Find each sum. (Examples 1-4)

12.
$$-2 + (-8)$$

14.
$$-12 + 15$$

15.
$$-10 + 5$$

16.
$$11 + (-2)$$

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