

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. $8 + 9 = 17$ b. $-2 + (-4)$ c. $-5 + (-10)$ d. $11 + 6$

$= -6$ -15 17

Also number line:

$$6 + -8 = -2 \qquad 95 + (-80) = 15$$

$$25 - 20 - 15 + 30$$

Your Turn

e. $-7 + 5$

f. $6 + (-8)$

g. $-4 + 9 = 5$

h. $11 + (-8) = 3$

$$\begin{array}{r} 25 \\ 20 \\ -15 \\ \hline 70 \end{array}$$

$$-7 + 5 = -2$$

$$-20 + (15) = -5$$

$$+25 - 20 - 15 + 30$$

$$55 - 35 = 20$$

$$-88 + 31 = -57$$



Example

Banking Link

5

Talisa opened a checking account with a deposit of \$25. During the next two weeks, she wrote checks for \$20 and \$15 and made a deposit of \$30. Find the balance in her account.

Example

6

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

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

Your Turn

Simplify each expression.

i. $-8y + 3y$

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

k. $\underline{-5x} + \underline{4x} = -1x$

$$\underline{-8y} + \underline{3y} = -5y \quad \underline{6m} + \underline{4m} + \underline{-2m} = 8m$$

Getting Ready

Tell whether each sum is *positive* or *negative*.

Sample 1: $-4 + (-3)$

Solution: Both integers are negative, so the sum is negative.

Sample 2: $-9 + 11$

Solution: $|11| > |-9|$, so the sum is positive.

5. $5 + 12$ +

6. $12 + (-15)$ -

7. $-3 + (-7)$ -

8. $-3 + 9$ +

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

10. $-8 + 12$ +

$-6 + 6 = 0$

$-3x + 3x = 0$

~~0x~~

Find each sum. (*Examples 1–4*)

11. $7 + 9$

12. $-2 + (-8)$

13. $8 + (-9)$

14. $-12 + 15$

15. $-10 + 5$

16. $11 + (-2)$

