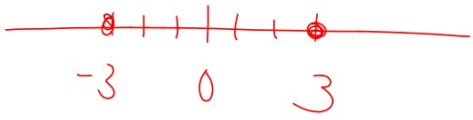
Algebra 1A 2.3

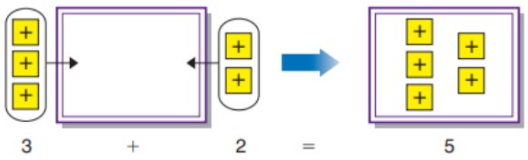
Add integers

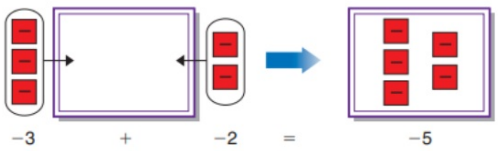
integer whole numbers + opposite
opposite (additive inverse)

Quiz 2.1-2.2 today

algebra tiles
activ: enter with integers




3
+
2
=
5


−3
+
−2
=
−5

Examples

Find each sum.

1 **4 + 5**

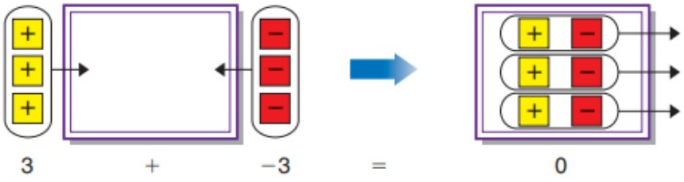
$4 + 5 = 9$ *Both numbers are positive, so the sum is positive.*

2 **−6 + (−2)**

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

Your Turn

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



Hands-On Algebra
Algebra Tiles

Materials: algebra tiles integer mat

Find the sum $3 + (-2)$ using 1-tiles.

Also number line:

Your Turn

e. $-7 + 5$ **f.** $6 + (-8)$ **g.** $-4 + 9$ **h.** $11 + (-8)$

+25 +5
-20
-15 -10
+30
$20

Real World

Example 5

Banking Link

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

$5x + (-3x) = [5 + (-3)]x$ *Use the Distributive Property.*

$= 2x$ $5 + (-3) = 2$

Your Turn

Simplify each expression.

i. $-8y + 3y$ j. $6m + 4m + (-2m)$ k. $-5x + 4x$

$= -5y$ $8m$ $= -x$

$3x + -4x = -1x = -x$ $-x + -2x$

$2x + 3x = 5x$

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. $-8 + 12$ +

Find each sum. *(Examples 1–4)*

11. $7 + 9$ =16

12. $-2 + (-8)$ -10

13. $8 + (-9)$ -1

14. $-12 + 15$ 3

15. $-10 + 5$ -5

16. $11 + (-2)$ 9