

Set E, pages 238–239

Find the product  $18 \times (-5)$ .

### Rules for Multiplying Integers

- The product of two integers with the same sign is positive.
- The product of two integers with different signs is negative.

One factor is positive and the other factor is negative, so the product is negative.

$$18 \times (-5) = -90$$

Set F, pages 240–241

Find the quotient  $-51 \div (-17)$ .

Use the relationship between multiplication and division to identify the sign of the quotient.

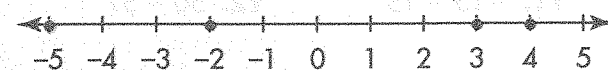
Both of the integers are negative, so the quotient is positive.

$$-51 \div (-17) = 3$$

Set G, pages 242–244

The absolute value of a number is its distance from 0 on the number line.

Use the number line to compare  $|-5|$  to  $|-2|$  and order  $|3|$ ,  $|4|$ ,  $|-2|$ ,  $|-5|$  from *least* to *greatest*.



$$\left. \begin{array}{l} |-5| = 5 \\ |-2| = 2 \\ |3| = 3 \\ |4| = 4 \end{array} \right\} \begin{array}{l} \text{So, } |-5| > |-2| \\ \text{and from least to greatest:} \\ |-2|, |3|, |4|, |-5| \end{array}$$

**Remember** that the product of two integers with different signs is negative. The product of two integers with the same signs is positive.

Find each product.

- |                       |                      |
|-----------------------|----------------------|
| 1. $-12 \times 3$     | 2. $-8 \times (-5)$  |
| 3. $-4 \times (-41)$  | 4. $-18 \times 6$    |
| 5. $-47 \times (-10)$ | 6. $2 \times (-39)$  |
| 7. $-60 \times (-15)$ | 8. $72 \times (-20)$ |

**Remember** that the quotient of two integers with different signs is negative. The quotient of two integers with the same sign is positive.

Find each quotient.

- |                     |                     |
|---------------------|---------------------|
| 1. $-32 \div 4$     | 2. $-81 \div (-3)$  |
| 3. $121 \div -11$   | 4. $-96 \div (12)$  |
| 5. $1,500 \div -15$ | 6. $320 \div (-16)$ |
| 7. $-525 \div 10$   | 8. $-2.5 \div (-5)$ |

**Remember** number lines can help you compare and order absolute values.

For 1 through 4, use  $<$  or  $>$  to compare.

- |  |   |
|--|---|
| 1. $ 7 $ <input type="checkbox"/> $ -9 $ | 2. $ -2 $ <input type="checkbox"/> $ 0 $  |
| 3. $ 4 $ <input type="checkbox"/> $ -6 $ | 4. $ 10 $ <input type="checkbox"/> $ -8 $ |

For 5 through 7, order the values from least to greatest.

- |                             |
|-----------------------------|
| 5. $ -3 $ , $ -2 $ , $ 10 $ |
| 6. $ -7 $ , $ 0 $ , $ -5 $  |
| 7. $ 2 $ , $ -6 $ , $ -8 $  |

Set H, pages 246–248

An ordered pair  $(x, y)$  of numbers gives the coordinates that locate a point on a coordinate plane.

To graph any point  $P$  with coordinates  $(x, y)$ :

**Step 1** Start at the origin,  $(0, 0)$ .

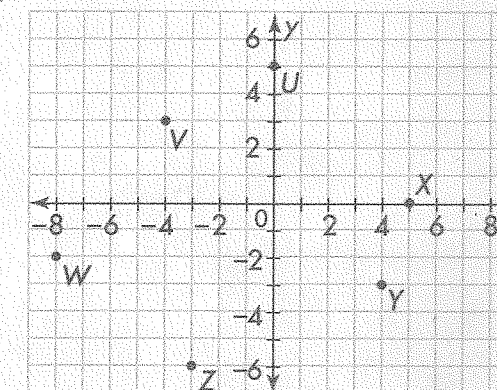
**Step 2** Use the  $x$ -coordinate to move right (if positive) or left (if negative) along the  $x$ -axis.

**Step 3** Then use the  $y$ -coordinate of the point to move up (if positive) or down (if negative) following the  $y$ -axis.

**Step 4** Draw a point on the coordinate grid and label the point.

**Remember** that the number lines called  $x$ - and  $y$ -axes divide the coordinate plane into four quadrants.

For 1 through 6, give the ordered pair for each point.

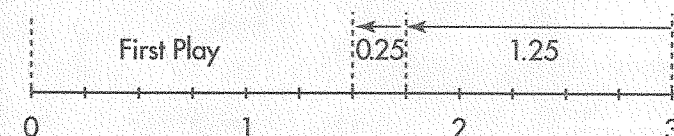


- |      |      |
|------|------|
| 1. U | 2. V |
| 3. W | 4. X |
| 5. Y | 6. Z |

Set I, pages 250–252

Alec's class went to 2 one-act plays. The evening lasted 3 hr, with a 0.25 hr intermission. The second play was 1.25 hr. How long was the first play?

Work backward by subtracting the hours you know from the total time of the evening.



The first play lasted 1.5 hr.

You can work backward when there is an end result after a series of steps, and you are asked to find the information in the first step.

**Remember** to use reasoning when you solve problems.

1. What is the perimeter of a rectangle with vertices at  $(6, 2)$ ,  $(9, 2)$ ,  $(9, 9)$ , and  $(6, 9)$ ?
2. At midnight, Emma's temperature was  $99.8^\circ\text{F}$ , which was  $0.4^\circ\text{F}$  lower than it was at 10 P.M. At 10 P.M., Emma's temperature was  $1.1^\circ\text{F}$  higher than it was at dinner time. What was Emma's temperature at dinner time?