

Lesson 1-5

Example 1

Find each product or quotient.

a. $1\frac{1}{5} \cdot 21 - \frac{5}{12} \cdot 21 - \frac{3}{7} \cdot 2$

b. $(4.5)(-5)(-10)(-0.2)$

c. $-12.8 \div 4$

d. $-\frac{27}{4} \div 1 - \frac{3}{4} \cdot 2$

Solution

a. $1\frac{1}{5} \cdot 21 - \frac{5}{12} \cdot 21 - \frac{3}{7} \cdot 2 = 1 - \frac{1}{12} \cdot 21 - \frac{3}{7} \cdot 2$
 $= \frac{1}{28}$

b. $(4.5)(-5)(-10)(-0.2) = (4.5)(-0.2)(-5)(-10)$
 $= (-0.9)(50)$
 $= -45$

c. Since the signs are different, the quotient is negative. $-12.8 \div 4 = -3.2$

d. Since the signs are the same, the quotient is positive. $-\frac{27}{4} \div 1 - \frac{3}{4} \cdot 2 = 9$

Example 2

Evaluate each expression when $q = 3$, $r = -0.5$, and $s = -6$.

a. rs

b. $-qs + r$

c. $r1\frac{s}{q} \cdot 2$

Solution

a. rs

$$= (-0.5)(-6)$$

$$= 3$$

b. $-qs + r$

$$= (-3)(-6) + (-0.5)$$

$$= 18 + (-0.5)$$

$$= 17.5$$

c. $r1\frac{s}{q} \cdot 2$

$$= -0.51\frac{-6}{3} \cdot 2$$

$$= (-0.5)(-2)$$

$$= 1$$

Example 3**Simplify.**

a. $-0.5 + 4.2 \div 2$

b. $(-7.3 + 4) \div 3$

c. $4 + 24 \div 6 \div 4 \cdot 3 - 14 \div 7$

Solution

a. $-0.5 + 4.2 \div 2$
 $= -0.5 + 2.1$
 $= 1.6$

b. $(-7.3 + 4) \div 3$
 $= (-3.3) \div 3$
 $= -1.1$

c. $4 + 24 \div 6 \div 4 \cdot 3 - 14 \div 7$
 $= 4 + 4 \div 4 \cdot 3 - 14 \div 7$
 $= 4 + 1 \cdot 3 - 14 \div 7$
 $= 4 + 3 - 14 \div 7$
 $= 4 + 3 - 2$
 $= 7 - 2$
 $= 5$