

Lesson 2.4: Developing Rules to Divide Integers

1. a) Evaluate each expression.

Multiplication

$$(+4) \times (-2) =$$

$$(-3) \times (+5) =$$

$$(-2) \times (-3) =$$

$$(+3) \times (+6) =$$

Division

$$(-8) \div (-2) =$$

$$(-15) \div (+5) =$$

$$(+6) \div (-3) =$$

$$(+18) \div (+6) =$$

- b) Look at the patterns in the signs in part a.
How are the rules for the sign of a quotient of two integers related to the rules for the sign of a product of two integers?

2. a) When is the quotient of two integers positive?

- b) When is the quotient of two integers negative?

3. Divide.

a) $(-100) \div (-10)$

b) $(-72) \div (+9)$

c) $(+56) \div (-7)$

d) $(-42) \div (-6)$

e) $(0) \div (-6)$

f) $(-9) \div (-9)$

4. Find each quotient. Then order the numbers from least to greatest.

a) $(+10) \div (-2)$

b) $(-15) \div (-5)$

c) $(-36) \div (+12)$

d) $(0) \div (-10)$

e) $(-8) \div (-8)$

f) $(-48) \div (+12)$

5. Maya recorded the noon temperature each day for a week.
 -12°C , -8°C , 3°C , 0°C , 1°C , -3°C , 5°C
What was the mean temperature?

Lesson 2.5: Order of Operations with Integers

1. Evaluate. State which operation you do first.

a) $8 \times 5 - 4$

b) $(-4)[(-4) + 9]$

c) $18 \div [(-7) - 2]$

d) $(-3) + (-14) \div (-2)$

2. Evaluate. Show all steps.

a) $4(-8) - 9$

b) $(-1) + (-20) \div 5$

c) $(-9) + (-4)(-2)$

d) $(-3)[(-8) - 11]$

3. Evaluate.

a) $\frac{(-5) + (-9)}{2}$

b) $\frac{-12}{(-2)(-3)}$

c) $\frac{24 \div (-6) - 1}{-5}$

d) $\frac{36}{(-5) \times 2 + 4}$

4. Evaluate.

a) $(-72) \div 9 + 4 \times (-3)$

b) $5(-2) - 63 \div (-7)$

c) $\frac{4(-5) + [28 \div (-4)]}{5 \times (-2) + 1}$

d) $\frac{4 \times (-4) + (-8)}{[10 + (-1)] + [2 \times (-3)]}$

5. Evaluate each expression. Then insert one pair of square brackets in each expression so it evaluates to -1 .

a) $12 \div (-4) + (-8)$

b) $(-9) + 6 \div 3$

c) $5 \div (-5) \times 0 + 1$