12.4

Multiplying and Dividing Rational Numbers

Multiplying Integers

Multiply numbers like regular multiplication... however...

POSITIVE X POSITIVE = POSITIVE
POSITIVE X NEGATIVE = NEGATIVE
NEGATIVE X POSITIVE = NEGATIVE
NEGATIVE x NEGATIVE = POSITIVE

a)
$$8 \times -6 = c$$
) $-9 \times -7 =$

$$(b) -11 \times 2 = (d) -12 \times 5 =$$

1)
$$-\frac{2}{7} \cdot \frac{1}{3} =$$

2)
$$-\frac{1}{2} \cdot \frac{4}{9} =$$

3)
$$-2\frac{1}{3} \times 3\frac{2}{3} =$$

4)
$$-2\frac{1}{2}\left(-3\frac{3}{5}\right) =$$

5)
$$\frac{3}{4} \bullet \left(-2\frac{1}{6}\right) \left(1\frac{2}{3}\right) =$$

6)
$$(-7)(0.08)(-0.4)$$

RULES FOR DIVIDING INTEGERS

Divide numbers like regular division... however...

POSITIVE ÷ POSITIVE = POSITIVE
POSITIVE ÷ NEGATIVE = NEGATIVE
NEGATIVE ÷ POSITIVE = NEGATIVE
NEGATIVE ÷ NEGATIVE = POSITIVE

$$a)$$
 $8 \div -4$

c)
$$-21 \div -7$$

$$(b) - 20 \div 4$$

$$d) -36 \div 3$$

Divide and then simplify

1)
$$-5\frac{1}{5} \div 2\frac{1}{3}$$

Divide and then simplify

2)
$$-3\frac{3}{5} \div (-6)$$

Practice

3) $-7.85 \div 0.005$

Practice

4)
$$(-0.5)(-4.2) \div 0.03$$