

**Multiplying/Dividing Rational Numbers
QUIZ REVIEW**

Name KEY

Topic 1: Multiply and Divide Integers

Evaluate the following.

1) $45 \div (-5) = \underline{-9}$

3) $-5 \times (-7) = \underline{35}$

5) $\frac{-56}{-8} = \underline{7}$

2) $-6 \times (-5) = \underline{30}$

4) $-54 \div 9 = \underline{-6}$

6) $-9(3) = \underline{-27}$

Topic 2: Multiply Integers (Multiple Numbers)

1. $2(-3)(-4)(-2) = \underline{-48}$

2. $-3(7)(-9) = \underline{189}$

Topic 3: Equivalent Fractions

1)

Given fraction	Check <i>all</i> fractions that are equivalent to the given fraction.
$\frac{5}{8}$	<input type="checkbox"/> $-\frac{5}{8}$ <input type="checkbox"/> $\frac{-5}{8}$ <input type="checkbox"/> $\frac{5}{-8}$ <input checked="" type="checkbox"/> $-\frac{5}{-8}$

2)

Given fraction	Check <i>all</i> fractions that are equivalent to the given fraction.
$\frac{-9}{15}$	<input type="checkbox"/> $\frac{9}{15}$ <input checked="" type="checkbox"/> $\frac{9}{-15}$ <input type="checkbox"/> $\frac{-9}{-15}$ <input checked="" type="checkbox"/> $-\frac{9}{15}$

3)

Given Fraction	Circle all fractions that are equivalent to the given fraction						
$-\frac{2}{3}$	$\frac{-8}{-12}$	<input checked="" type="checkbox"/> $\frac{8}{-12}$	$\frac{-2}{-3}$	<input checked="" type="checkbox"/> $\frac{-2}{3}$	$\frac{-4}{-6}$	$\frac{-4}{9}$	<input checked="" type="checkbox"/> $\frac{-4}{6}$

Topic 4: Multiply Fractions

Multiply. Write your answer in simplest form. (Can be improper)

1) $-\frac{1}{8} \cdot \left(-\frac{3}{5}\right) = \frac{3}{40}$

2) $\frac{1}{9} \left(-\frac{3}{5}\right)$

3) $\left(-\frac{7}{2}\right)(-8) = 28$

$\frac{-3}{45} = \frac{-1}{15}$

4) $\frac{-4}{8} \cdot \frac{1}{-7} \cdot 5 = \frac{5}{14}$

5) $\frac{6}{-7} \cdot \frac{-5}{-3} \cdot 8 = -11\frac{3}{7}$ or $-\frac{80}{7}$

Topic 5: Divide Fractions

Divide. Write your answer in simplest form. (Can be improper)

1) $\frac{4}{15} \div \left(-\frac{8}{25}\right)$

$-\frac{5}{6}$

2) $\frac{-3}{-\frac{8}{21}}$

$\frac{3}{7}$

3) $-\frac{20}{9} \div \frac{35}{24}$

$-1\frac{11}{21}$ or $-\frac{32}{21}$

Topic 6: Multiplying Decimals

1. $2.5(-0.6) = \underline{-1.5}$

2. $-321.5 \cdot (-0.3) = \underline{96.45}$

3. $-4.6(-2.1) = \underline{9.66}$

4. $54.8 \cdot (-0.8) = \underline{-43.84}$

Topic 7: Dividing Decimals

1. $-25.8 \div (-6) = \underline{4.3}$

2. $-353.2 \div 1000 = \underline{-0.3532}$

3. $6.75 \div (-0.9) = \underline{-7.5}$

4. $-18.3 \div (-100) = \underline{0.183}$

Topic 8: One Step Word Problems

1) Last year 140 houses were built in a new neighborhood. So far, $\frac{3}{7}$ were sold. How many have been sold? Write your answer in simplest form.

60 houses

2) Wesley's shelf has 12 inches of space remaining. Each of his books is $\frac{3}{4}$ in wide. How many books will fit in the remaining space?

16 books

3) Mrs. Graf's dog ate 4 cans of dog food this week. Each can contained 43.4 grams of protein. How many grams of protein did the dog eat?

173.6 grams

4) A stack of 7 books weighs 9.8 ounces. If each book weighs the same amount, how much does each book weigh?

1.4 oz

Topic 9: Multi-Step Word Problems

1) Nelson is planting flowers in his garden. His garden is 6 ft long and wide enough for one flower. He is going to plant a flower every three inches, including at both ends of the garden.

$\frac{2}{5}$ of the garden will be white flowers, which cost \$1.24 each. $\frac{2}{5} \cdot 25 = 10$ white

$\frac{3}{5}$ of the garden will be red flowers, which cost \$2.21 each. $\frac{3}{5} \cdot 25 = 15$ red

How much will he spend to plant flowers?

$$\frac{72 \text{ in.}}{3 \text{ in.}} = 24 + 1 = 25$$

↑
(both ends)

$$(10 \cdot 1.24) + (15 \cdot 2.21) = \$45.55$$

2) The table below gives the heights of five different tomato plants in Thomas's garden. What is the average height of the tomato plants?

Plant 1	Plant 2	Plant 3	Plant 4	Plant 5
$13\frac{1}{4}$ in	16 in	10.5 in	15.75 in	$8\frac{1}{2}$ in

12.8 in.

3) A box of nails has a mass of $\frac{7}{8}$ kilogram. Alex buys a crate of 12 of those boxes of nails. He then uses $\frac{1}{2}$ of the nails from one of the boxes. What is the total mass of the remaining nails in Alex's crate?

$$12 \cdot \frac{7}{8} = 10.5 \text{ kg} - \frac{7}{16} \text{ kg} = 10\frac{1}{16} \text{ kg or } 10.0625 \text{ kg}$$

4) Lori bought a book for \$12.50. She sold it online for \$21.20 but had to pay the website a fee of $\frac{1}{10}$ of the sale price. She also had to pay \$2.35 in shipping costs. How much profit did she make?

$$\begin{array}{r} 0.9 \times 21.20 = 19.08 \\ - 2.35 \\ \hline 16.73 - 12.50 = \$4.23 \end{array}$$

5) Aaron has a lemonade stand. He spent \$4.89 on supplies to make lemonade and \$7.35 on supplies to make cookies. At his lemonade stand, he sold 26 cups of lemonade for \$0.50 each and 17 cookies for \$0.75 each. What were Aaron's profits that day?

$$\begin{array}{r} 26 \cdot 0.50 = 13.00 \\ 17 \cdot 0.75 = 12.75 \\ \hline \$25.75 - 4.89 - 7.35 = \$13.51 \end{array}$$