Division of a Fraction by a Whole Number

A. Fill in the Blanks

1. To divide a fraction by a whole number, you multiply the fraction by the whole number's _____.

2. The reciprocal of the whole number 12 is _____.

3. $\frac{4}{7} \div 5$ is the same as $\frac{4}{7} \times$ _____.

4. To solve 5 1/3 ÷ 4, you must first convert $5\frac{1}{3}$ to an _____ fraction.

5. If $\frac{1}{4}$ is divided by 3, the resulting numerator is 1 and the denominator is _____.

B. Match the Following;

Column A (Problem)	Column B (Expression)
1. $\frac{3}{5} \div 6$	A. $\frac{5}{4} \times \frac{1}{5}$
2. $\frac{2}{3} \div 4$	B. $\frac{3}{5} \times \frac{1}{6}$
3. $\frac{5}{4} \div 5$	C. $\frac{4}{10} \times \frac{1}{2}$
4. $\frac{4}{10} \div 2$	D. $\frac{2}{3} \times \frac{1}{4}$

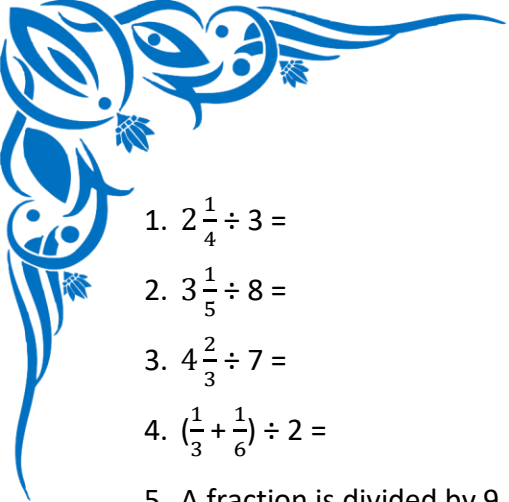## C. Solve the following problems. Remember to simplify your final answer to its lowest terms.

1. $\frac{4}{5} \div 2 =$

2. $\frac{6}{7} \div 3 =$

3. $\frac{9}{10} \div 3 =$

4. $\frac{8}{9} \div 4 =$

5. $\frac{10}{11} \div 5 =$

D. Warm-up Questions

1. $\frac{1}{3} \div 2 =$

2. $\frac{1}{5} \div 4 =$

3. $\frac{2}{7} \div 3 =$

4. $\frac{3}{5} \div 2 =$

5. $\frac{5}{8} \div 3 =$

E. Challenge Questions

These problems may involve mixed numbers or multiple steps. Convert mixed numbers to improper fractions before you begin

1. $2\frac{1}{4} \div 3 =$

2. $3\frac{1}{5} \div 8 =$

3. $4\frac{2}{3} \div 7 =$

4. $(\frac{1}{3} + \frac{1}{6}) \div 2 =$

5. A fraction is divided by 9. The result is $\frac{2}{27}$. What was the original fraction?

F. Word Problems & Application

1. Leo has 1/2 of a large chocolate bar. He wants to share it equally among himself and his 3 friends. What fraction of the whole chocolate bar does each person get?

- Equation:
- Solution:

2. A recipe calls for 3/4 of a cup of sugar to make a full batch of cookies. If you only want to make a batch that is 1/3 of the recipe's size, you would multiply. But if you want to divide the 3/4 cup of sugar into 6 equal small portions for a science experiment, what fraction of a cup is in each portion?

- Equation:
- Solution:

3. A painter uses 4/5 of a gallon of paint to paint 2 identical doors. What fraction of a gallon of paint is used for each door?

- Equation:
- Solution:

4. Maria has a ribbon that is 2 1/2 meters long. She cuts it into 5 equal pieces. How long is each piece of ribbon?

- Equation:
- Solution:

5. A farmer owns 7/8 of an acre of land. He divides it into 4 equal plots for his children. What is the size of each plot in acres?

- Equation:
- Solution:

G. True or False

1. $\frac{1}{5} \div 2 = \frac{2}{5}$ _____

2. The reciprocal of 8 is $\frac{8}{1}$. _____

3. To divide by a whole number, you flip the first fraction and multiply. _____

4. $\frac{6}{7} \div 3$ is the same as $3 \div \frac{6}{7}$. _____

5. $\frac{4}{9} \div 2 = \frac{2}{9}$ _____