

## Dividing Fractions

Date \_\_\_\_\_ Period \_\_\_\_\_

**Divide.**

1)  $\frac{5}{4} \div \frac{5}{1}$

2)  $\frac{8}{1} \div \frac{8}{9}$

3)  $\frac{8}{1} \div \frac{5}{4}$

4)  $\frac{6}{5} \div \frac{5}{1}$

5)  $\frac{4}{5} \div \frac{6}{1}$

6)  $\frac{3}{1} \div \frac{1}{6}$

7)  $\frac{1}{5} \div \frac{5}{1}$

8)  $\frac{6}{1} \div \frac{8}{7}$

9)  $\frac{2}{3} \div \frac{2}{1}$

## Dividing Fractions

Date \_\_\_\_\_ Period \_\_\_\_\_

**Divide.**

1)  $\frac{5}{4} \div \frac{5}{1}$

Answer:  $\frac{1}{4}$ 

2)  $\frac{8}{1} \div \frac{8}{9}$

Answer: 9

3)  $\frac{8}{1} \div \frac{5}{4}$

Answer:  $6\frac{2}{5}$ 

4)  $\frac{6}{5} \div \frac{5}{1}$

Answer:  $\frac{6}{25}$ 

5)  $\frac{4}{5} \div \frac{6}{1}$

Answer:  $\frac{2}{15}$ 

6)  $\frac{3}{1} \div \frac{1}{6}$

Answer: 18

7)  $\frac{1}{5} \div \frac{5}{1}$

Answer:  $\frac{1}{25}$ 

8)  $\frac{6}{1} \div \frac{8}{7}$

Answer:  $5\frac{1}{4}$ 

9)  $\frac{2}{3} \div \frac{2}{1}$

Answer:  $\frac{1}{3}$

**Solution Steps**

1)  $\frac{5}{4} \div \frac{5}{1}$

Dividing fractions is the same as multiplying by the reciprocal

The reciprocal of the second fraction is  $\frac{1}{5}$

$$\frac{5}{4} / \frac{5}{1} = \frac{5}{4} * \frac{1}{5}$$

$$\frac{5 * 1}{4 * 5}$$

$$\frac{5^1 * 1}{4 * 5^1}$$

$$\frac{1}{4}$$

$$\frac{1}{4}$$

$$\frac{1}{4}$$

4)  $\frac{6}{5} \div \frac{5}{1}$

Dividing fractions is the same as multiplying by the reciprocal

The reciprocal of the second fraction is  $\frac{1}{5}$

$$\frac{6}{5} / \frac{5}{1} = \frac{6}{5} * \frac{1}{5}$$

$$\frac{6 * 1}{5 * 5}$$

$$\frac{6}{25}$$

$$\frac{6}{25}$$

2)  $\frac{8}{1} \div \frac{8}{9}$

Dividing fractions is the same as multiplying by the reciprocal

The reciprocal of the second fraction is  $\frac{9}{8}$

$$\frac{8}{1} / \frac{8}{9} = \frac{8}{1} * \frac{9}{8}$$

$$\frac{8 * 9}{1 * 8}$$

$$\frac{8^1 * 9}{1 * 8^1}$$

$$\frac{9}{1}$$

$$\frac{9}{1}$$

$$9$$

5)  $\frac{4}{5} \div \frac{6}{1}$

Dividing fractions is the same as multiplying by the reciprocal

The reciprocal of the second fraction is  $\frac{1}{6}$

$$\frac{4}{5} / \frac{6}{1} = \frac{4}{5} * \frac{1}{6}$$

$$\frac{4 * 1}{5 * 6}$$

$$\frac{4^2 * 1}{5 * 6^3}$$

$$\frac{2}{15}$$

$$\frac{2}{15}$$

$$\frac{2}{15}$$

3)  $\frac{8}{1} \div \frac{5}{4}$

Dividing fractions is the same as multiplying by the reciprocal

The reciprocal of the second fraction is  $\frac{4}{5}$

$$\frac{8}{1} / \frac{5}{4} = \frac{8}{1} * \frac{4}{5}$$

$$\frac{8 * 4}{1 * 5}$$

$$\frac{2}{5}$$

$$\frac{2}{5}$$

$$\frac{2}{5}$$

6)  $\frac{3}{1} \div \frac{1}{6}$

Dividing fractions is the same as multiplying by the reciprocal

The reciprocal of the second fraction is  $\frac{6}{1}$

$$\frac{3}{1} / \frac{1}{6} = \frac{3}{1} * \frac{6}{1}$$

$$\frac{3 * 6}{1 * 1}$$

$$18$$

$$18$$

$$7) \frac{1}{5} \div \frac{5}{1}$$

Dividing fractions is the same as multiplying by the reciprocal

The reciprocal of the  $\frac{1}{5}$  second fraction is  $\frac{1}{5}$

$$\frac{1}{5} / \frac{5}{1} = \frac{1}{5} * \frac{1}{5}$$

$$\frac{\frac{1 * 1}{5 * 5}}{1} = \frac{1}{25}$$

$$8) \frac{6}{1} \div \frac{8}{7}$$

Dividing fractions is the same as multiplying by the reciprocal

The reciprocal of the  $\frac{8}{7}$  second fraction is  $\frac{7}{8}$

$$\frac{6}{1} / \frac{8}{7} = \frac{6}{1} * \frac{7}{8}$$

$$\frac{\frac{1 * 8}{6 * 7}}{(1 * 8)} = \frac{(6^3 * 7)}{(1 * 8^4)} = \frac{5}{4}$$

$$9) \frac{2}{3} \div \frac{2}{1}$$

Dividing fractions is the same as multiplying by the reciprocal

The reciprocal of the  $\frac{1}{2}$  second fraction is  $\frac{1}{2}$

$$\frac{2}{3} / \frac{2}{1} = \frac{2}{3} * \frac{1}{2}$$

$$\frac{\frac{3 * 2}{2 * 1}}{(3 * 2)} = \frac{(2^1 * 1)}{(3 * 2^1)} = \frac{1}{3}$$