

## Multiplying and Dividing Fractions Review

Examples:

1.  $\frac{4}{5} \cdot \frac{2}{3}$

$$\begin{array}{r} 4 \cdot 2 \\ 5 \cdot 3 \\ \hline 8 \\ 15 \end{array}$$

Now you try...

5.  $\frac{1}{4} \cdot \frac{3}{8}$

$$\frac{3}{32}$$

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

$$\begin{array}{r} 24 \cdot 3 \\ 5 \cdot 12 \\ \hline 2 \cdot 3 \\ 5 \cdot 1 \\ \hline 6 \\ 5 \end{array}$$

6.  $\frac{1}{4} \div \frac{3}{8}$

$$\begin{array}{r} 1 \cdot 8 \\ 4 \cdot 3 \\ \hline 2 \\ 3 \end{array}$$

3.  $\frac{2}{7} \cdot \frac{3}{4}$

$$\begin{array}{r} 2 \cdot 3 \\ 7 \cdot 4 \\ \hline 3 \\ 14 \end{array}$$

7.  $\frac{5}{9} \cdot \frac{2}{5}$

$$\begin{array}{r} 18 \cdot 2 \\ 9 \cdot 8 \\ \hline 2 \\ 9 \end{array}$$

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

$$\begin{array}{r} 2 \cdot 4 \\ 7 \cdot 3 \\ \hline 2 \cdot 4 \\ 7 \cdot 3 \end{array} = \frac{8}{21}$$

8.  $\frac{5}{9} \div \frac{2}{5}$

$$\begin{array}{r} 5 \cdot 5 \\ 9 \cdot 2 \\ \hline 25 \\ 18 \end{array} = 1 \frac{7}{18}$$

How do we deal with mixed numbers????

9.  $2\frac{3}{4} \cdot 1\frac{1}{3}$

$$\begin{array}{r} 11 \cdot 14 \\ 14 \cdot 3 \\ \hline 11 \\ 3 \end{array} = 3\frac{2}{3}$$

10.  $2\frac{3}{4} \div 1\frac{1}{3}$

$$\begin{array}{r} 11 \div 4 \\ 11 \cdot 3 \\ 4 \cdot 4 \\ \hline 33 \\ 16 \end{array} = 2\frac{1}{16}$$

11.  $6 \cdot 3\frac{2}{5}$

$$\begin{array}{r} 6 \cdot 17 \\ 7 \cdot 5 \\ \hline 102 \\ 5 \end{array} = 20\frac{2}{5}$$

12.  $6 \div 3\frac{2}{5}$

$$\begin{array}{r} 6 \div 17 \\ 6 \cdot 5 \\ 7 \cdot 17 \\ \hline 30 \\ 119 \end{array} = 1\frac{13}{119}$$

13.  $3\frac{1}{4} \cdot \frac{2}{5}$

$$\begin{array}{r} 13 \cdot 2 \\ 24 \cdot 5 \\ \hline 13 \\ 10 \end{array} = 1\frac{3}{10}$$

14.  $3\frac{1}{4} \div \frac{2}{5}$

$$\begin{array}{r} 13 \cdot 5 \\ 4 \cdot 2 \\ \hline 65 \\ 8 \end{array} = 8\frac{1}{8}$$

15.  $6\frac{1}{2} \cdot 2\frac{1}{3}$

$$\begin{array}{r} 13 \cdot 7 \\ 2 \cdot 3 \\ \hline 91 \\ 6 \end{array} = 15\frac{1}{6}$$

16.  $6\frac{1}{2} \div 2\frac{1}{3}$

$$\begin{array}{r} 13 \div 7 \\ 13 \cdot 3 \\ 2 \cdot 7 \\ \hline 39 \\ 14 \end{array} = 2\frac{11}{14}$$

17. A floor-cleaning solution is made using  $\frac{1}{2}$  cup of ammonia for every 3 gallons of water. How much ammonia would you need if you were making only one gallon of floor cleaner?

$$\frac{1}{2}c = 3 \text{ gal } H_2O$$

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

$$\frac{1}{2} \cdot \frac{1}{3} = \frac{1}{6} \text{ cup of ammonia}$$

18. Lilly ran  $\frac{9}{10}$  of a mile. Claire ran  $\frac{3}{4}$  of what Lilly ran. How far did Claire run?

$$\frac{9}{10} \cdot \frac{3}{4}$$

$$\frac{27}{40} \text{ of a mile}$$

19. Tyrone needs 8 pieces of cloth that are  $3\frac{1}{2}$  feet long for decorations for the dance. How much material should he buy?

$$8 \cdot 3\frac{1}{2}$$

$$48 \cdot \frac{7}{12}$$

14 ft of material

20. Michael has  $\frac{7}{8}$  of a pie left. How many  $\frac{1}{16}$  pieces can he cut from what he has now?

$$\frac{7}{8} \div \frac{1}{16}$$

$$\frac{7}{8} \cdot \frac{16}{1}$$

He can cut

14 pieces that are  $\frac{1}{16}$  of a pie.

21. Martha is cutting rope into pieces for a craft project. The rope was  $6\frac{1}{4}$  feet long, and there are  $2\frac{1}{2}$  pieces. How long is each piece?

$$6\frac{1}{4} \div 2\frac{1}{2}$$

$$\frac{25}{4} \div \frac{5}{2}$$

$$5\frac{25}{24} \cdot \frac{2}{5}$$

$$\frac{5}{2} = 2\frac{1}{2}$$

each piece is  $2\frac{1}{2}$  ft long