

$$\frac{3}{4} \times 4 = \begin{array}{|c|c|} \hline \text{shaded} & \text{shaded} \\ \hline \text{shaded} & \text{white} \\ \hline \end{array} + \begin{array}{|c|c|} \hline \text{shaded} & \text{shaded} \\ \hline \text{shaded} & \text{white} \\ \hline \end{array} + \begin{array}{|c|c|} \hline \text{shaded} & \text{shaded} \\ \hline \text{shaded} & \text{white} \\ \hline \end{array} + \begin{array}{|c|c|} \hline \text{shaded} & \text{shaded} \\ \hline \text{shaded} & \text{white} \\ \hline \end{array} = \begin{array}{l} \textcircled{A} \frac{3}{16} \quad \textcircled{B} 4 \\ \textcircled{C} 3 \quad \textcircled{D} 12 \end{array}$$

2.

$$\frac{2}{5} \times 3 = \begin{array}{|c|c|c|c|c|} \hline \text{shaded} & \text{shaded} & \text{white} & \text{white} & \text{white} \\ \hline \end{array} + \begin{array}{|c|c|c|c|c|} \hline \text{shaded} & \text{shaded} & \text{white} & \text{white} & \text{white} \\ \hline \end{array} + \begin{array}{|c|c|c|c|c|} \hline \text{shaded} & \text{shaded} & \text{white} & \text{white} & \text{white} \\ \hline \end{array} = \begin{array}{l} \textcircled{A} 1\frac{1}{5} \quad \textcircled{B} \frac{2}{15} \\ \textcircled{C} 5\frac{1}{5} \quad \textcircled{D} 1 \end{array}$$

3.

$$\frac{7}{8} \div 7 = \begin{array}{|c|c|c|c|} \hline \text{diagonal} & \text{shaded} & \text{shaded} & \text{shaded} \\ \hline \text{shaded} & \text{shaded} & \text{shaded} & \text{white} \\ \hline \end{array} = \begin{array}{l} \textcircled{A} 8 \quad \textcircled{B} \frac{1}{8} \\ \textcircled{C} 7 \quad \textcircled{D} \frac{1}{7} \end{array}$$

4.

$$\frac{1}{2} \div 3 = \begin{array}{|c|c|c|} \hline \text{diagonal} & \text{shaded} & \text{shaded} \\ \hline \text{white} & \text{white} & \text{white} \\ \hline \end{array} = \begin{array}{l} \textcircled{A} 6 \quad \textcircled{B} \frac{2}{3} \\ \textcircled{C} 3 \quad \textcircled{D} \frac{1}{6} \end{array}$$

5.

$$\frac{1}{2} \times \frac{2}{3} = \begin{array}{l} \textcircled{A} \frac{3}{5} \quad \textcircled{B} \frac{1}{3} \\ \textcircled{C} \frac{3}{6} \quad \textcircled{D} \frac{2}{5} \end{array}$$

6.

$$\frac{8}{9} \div \frac{2}{9} = \begin{array}{l} \textcircled{A} 8 \quad \textcircled{B} 9 \\ \textcircled{C} 2 \quad \textcircled{D} 4 \end{array}$$

7.

$$\frac{5}{16} \times \frac{4}{5} = \begin{array}{l} \textcircled{A} \frac{9}{16} \quad \textcircled{B} \frac{1}{5} \\ \textcircled{C} \frac{1}{4} \quad \textcircled{D} \frac{3}{5} \end{array}$$

8.

$$\frac{2}{3} \div \frac{8}{15} = \begin{array}{l} \textcircled{A} 1\frac{1}{4} \quad \textcircled{B} \frac{10}{18} \\ \textcircled{C} 4\frac{1}{2} \quad \textcircled{D} \frac{6}{12} \end{array}$$

1.

$$\frac{1}{4} \times \frac{8}{9} = \frac{8}{36} = \frac{2}{9}$$

2.

$$\frac{2}{9} \div \frac{8}{9} = \frac{2}{9} \times \frac{9}{8} = \text{---} = \text{---}$$

3.

$$\frac{5}{16} \times \frac{4}{5} = \text{---} = \text{---}$$

4.

$$\text{---} \div \frac{4}{5} = \text{---} \times \frac{5}{4} = \text{---}$$

5.

$$\frac{3}{4} \times \frac{3}{7} = \text{---}$$

6.

$$\text{---} \div \text{---} = \text{---} \times \text{---} = \text{---} = \text{---}$$

Shortcut for
multiplication:

1. Write the numerators and denominators.
2. Reorder the factors in the numerator.
3. Rename the new fractions.
4. Simplify the fractions.
5. Multiply.

$$\frac{2}{3} \times \frac{3}{4} = \frac{2 \times 3}{3 \times 4} = \frac{3 \times 2}{3 \times 4} = \frac{3}{3} \times \frac{2}{4} = 1 \times \frac{1}{2} = \frac{1}{2}$$

7.

$$\frac{3}{7} \times \frac{14}{15} = \frac{\times}{\times} = \frac{\times}{\times} = \text{---} \times \text{---} = \text{---}$$

8.

$$\frac{5}{8} \times \frac{12}{25} = \frac{\times}{\times} = \frac{\times}{\times} = \text{---} \times \text{---} = \text{---}$$