

Dividing Fractions

Divide the following fractions. Simplify your answers where necessary. Change any improper fractions to mixed numbers. Show ALL working.

$$1) \quad \frac{5}{6} \div \frac{2}{3} =$$

$$7) \quad \frac{3}{7} \div \frac{6}{21} =$$

$$2) \quad \frac{3}{5} \div \frac{9}{10} =$$

$$8) \quad \frac{3}{8} \div \frac{6}{7} =$$

$$3) \quad \frac{1}{2} \div \frac{3}{4} =$$

$$9) \quad \frac{1}{4} \div \frac{3}{4} =$$

$$4) \quad \frac{2}{3} \div \frac{5}{8} =$$

$$10) \quad \frac{3}{8} \div \frac{9}{16} =$$

$$5) \quad \frac{3}{4} \div \frac{2}{3} =$$

$$11) \quad \frac{3}{8} \div \frac{15}{16} =$$

$$6) \quad \frac{10}{11} \div \frac{5}{11} =$$

$$12) \quad \frac{5}{8} \div \frac{25}{16} =$$

Divide the following fractions. Some should first be re-written as improper fractions. Simplify your answers where necessary. Show ALL working.

Example 1: $2\frac{2}{5} \div \frac{3}{10} = \frac{12}{5} \div \frac{3}{10} = \frac{12}{5} \times \frac{10}{3} = \frac{8}{1} = 8$

Example 2: $1\frac{2}{7} \div 3 = \frac{9}{7} \div \frac{3}{1} = \frac{9}{7} \times \frac{1}{3} = \frac{3}{7}$

$$13) \quad 1\frac{2}{3} \div \frac{5}{9} =$$

$$15) \quad 3\frac{3}{4} \div 3 =$$

$$14) \quad 2\frac{1}{7} \div \frac{3}{14} =$$

$$16) \quad 2\frac{1}{2} \div 10 =$$

I affirm that this test was done under test conditions. Parent signature: _____

Dividing Fractions - Answers

Do not give this to the student.

There may be more than one way to cancel, but only one correct answer.

$$1) \quad \frac{5}{6} \div \frac{2}{3} = \frac{\overset{1}{\cancel{5}} \times \overset{3}{\cancel{3}}}{\underset{2}{\cancel{6}} \times 2} = \frac{5}{4} = 1\frac{1}{4} \quad 7) \quad \frac{3}{7} \div \frac{6}{21} = \frac{\overset{1}{\cancel{3}} \times \overset{3}{\cancel{21}}}{\underset{1}{\cancel{7}} \times \underset{2}{\cancel{6}}} = \frac{3}{2} = 1\frac{1}{2}$$

$$2) \quad \frac{3}{5} \div \frac{9}{10} = \frac{\overset{1}{\cancel{3}} \times \overset{2}{\cancel{10}}}{\underset{1}{\cancel{5}} \times \underset{3}{\cancel{9}}} = \frac{2}{3} \quad 8) \quad \frac{3}{8} \div \frac{6}{7} = \frac{\overset{1}{\cancel{3}} \times \overset{7}{\cancel{7}}}{\underset{2}{\cancel{8}} \times \underset{2}{\cancel{6}}} = \frac{7}{16}$$

$$3) \quad \frac{1}{2} \div \frac{3}{4} = \frac{\overset{1}{\cancel{1}} \times \overset{4}{\cancel{4}}}{\underset{1}{\cancel{2}} \times 3} = \frac{2}{3} \quad 9) \quad \frac{1}{4} \div \frac{3}{4} = \frac{\overset{1}{\cancel{1}} \times \overset{4}{\cancel{4}}}{\underset{1}{\cancel{4}} \times 3} = \frac{1}{3}$$

$$4) \quad \frac{2}{3} \div \frac{5}{8} = \frac{\overset{2}{\cancel{2}} \times \overset{8}{\cancel{8}}}{\underset{3}{\cancel{3}} \times 5} = \frac{16}{15} = 1\frac{1}{15} \quad 10) \quad \frac{3}{8} \div \frac{9}{16} = \frac{\overset{1}{\cancel{3}} \times \overset{2}{\cancel{16}}}{\underset{1}{\cancel{8}} \times \underset{3}{\cancel{9}}} = \frac{2}{3}$$

$$5) \quad \frac{3}{4} \div \frac{2}{3} = \frac{\overset{3}{\cancel{3}} \times \overset{3}{\cancel{3}}}{\underset{4}{\cancel{4}} \times 2} = \frac{9}{8} = 1\frac{1}{8} \quad 11) \quad \frac{3}{8} \div \frac{15}{16} = \frac{\overset{1}{\cancel{3}} \times \overset{2}{\cancel{16}}}{\underset{1}{\cancel{8}} \times \underset{5}{\cancel{15}}} = \frac{2}{5}$$

$$6) \quad \frac{10}{11} \div \frac{5}{11} = \frac{\overset{2}{\cancel{10}} \times \overset{1}{\cancel{11}}}{\underset{1}{\cancel{11}} \times \underset{1}{\cancel{5}}} = \frac{2}{1} = 2 \quad 12) \quad \frac{5}{8} \div \frac{25}{16} = \frac{\overset{1}{\cancel{5}} \times \overset{2}{\cancel{16}}}{\underset{1}{\cancel{8}} \times \underset{5}{\cancel{25}}} = \frac{2}{5}$$

$$13) \quad 1\frac{2}{3} \div \frac{5}{9} = \frac{\overset{1}{\cancel{5}} \times \overset{3}{\cancel{9}}}{\underset{1}{\cancel{3}} \times \underset{1}{\cancel{5}}} = \frac{3}{1} = 3$$

$$14) \quad 2\frac{1}{7} \div \frac{3}{14} = \frac{\overset{5}{\cancel{15}} \times \overset{2}{\cancel{14}}}{\underset{1}{\cancel{7}} \times \underset{1}{\cancel{3}}} = \frac{10}{1} = 10$$

$$15) \quad 3\frac{3}{4} \div 3 = \frac{\overset{5}{\cancel{15}} \times \overset{1}{\cancel{3}}}{\underset{1}{\cancel{4}} \times \underset{1}{\cancel{3}}} = \frac{5}{4} = 1\frac{1}{4}$$

$$16) \quad 2\frac{1}{2} \div 10 = \frac{\overset{1}{\cancel{5}} \times \overset{1}{\cancel{10}}}{\underset{2}{\cancel{2}} \times \underset{2}{\cancel{10}}} = \frac{1}{4}$$