

Name:

Class/Set:

Multiplying and Dividing Fractions

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1: Work out the following, showing your method and simplifying your answer:

a) $\frac{2}{9} \times \frac{7}{9}$

b) $\frac{5}{8} \times \frac{4}{5}$

c) $\frac{9}{10} \times \frac{3}{8}$

d) $\frac{1}{7} \times \frac{8}{9}$

2: Work out the following, showing your method and simplifying your answer:

a) $\frac{1}{3} \div \frac{4}{9}$

b) $\frac{3}{7} \div \frac{7}{10}$

c) $\frac{5}{9} \div \frac{2}{3}$

d) $\frac{2}{5} \div \frac{4}{7}$

3: Work out the following, showing your method and simplifying your answer:

a) $1\frac{1}{8} \times \frac{3}{5}$

b) $\frac{2}{5} \times 1\frac{3}{5}$

c) $3\frac{1}{2} \times \frac{4}{5}$

d) $\frac{3}{4} \times 3\frac{1}{3}$

4: Work out the following, showing your method and simplifying your answer:

a) $2\frac{1}{4} \div \frac{9}{10}$

b) $1\frac{3}{4} \div \frac{2}{9}$

c) $\frac{3}{7} \div 2\frac{2}{3}$

d) $\frac{7}{9} \div 1\frac{1}{6}$

5: Work out the following, showing your method and simplifying your answer:

a) $\frac{7}{10} \times 1\frac{1}{7}$

b) $1\frac{1}{2} \div \frac{5}{7}$

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

d) $\frac{4}{5} \times 2\frac{1}{4}$

6: Work out the following, showing your method and simplifying your answer:

a) $3\frac{1}{3} \times 1\frac{1}{3}$

b) $3\frac{1}{2} \times 2\frac{1}{3}$

c) $1\frac{1}{9} \times 1\frac{2}{7}$

d) $1\frac{1}{6} \times 1\frac{3}{4}$

7: Work out the following, showing your method and simplifying your answer:

a) $4\frac{1}{2} \div 1\frac{2}{3}$

b) $1\frac{1}{7} \div 2\frac{2}{3}$

c) $1\frac{1}{2} \div 1\frac{1}{5}$

d) $1\frac{2}{5} \div 1\frac{1}{8}$

8: Work out the following, showing your method and simplifying your answer:

a) $2\frac{1}{2} \times 1\frac{4}{5}$

b) $1\frac{3}{7} \div 1\frac{3}{5}$

c) $3\frac{1}{2} \div 1\frac{3}{4}$

d) $1\frac{1}{4} \times 4\frac{1}{2}$

Answers: Multiplying and Dividing Fractions

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1: a) $\frac{2}{9} \times \frac{7}{9} = \frac{14}{81}$ b) $\frac{5}{8} \times \frac{4}{5} = \frac{1}{2} \times \frac{1}{1} = \frac{1}{2}$ c) $\frac{9}{10} \times \frac{3}{8} = \frac{27}{80}$ d) $\frac{1}{7} \times \frac{8}{9} = \frac{8}{63}$

2: a) $\frac{1}{3} \div \frac{4}{9} = \frac{1}{3} \times \frac{9}{4} = \frac{1}{1} \times \frac{3}{4} = \frac{3}{4}$ b) $\frac{3}{7} \div \frac{7}{10} = \frac{3}{7} \times \frac{10}{7} = \frac{30}{49}$
c) $\frac{5}{9} \div \frac{2}{3} = \frac{5}{9} \times \frac{3}{2} = \frac{5}{3} \times \frac{1}{2} = \frac{5}{6}$ d) $\frac{2}{5} \div \frac{4}{7} = \frac{2}{5} \times \frac{7}{4} = \frac{1}{5} \times \frac{7}{2} = \frac{7}{10}$

3: a) $\frac{9}{8} \times \frac{3}{5} = \frac{27}{40}$ b) $\frac{2}{5} \times \frac{8}{5} = \frac{16}{25}$
c) $\frac{7}{2} \times \frac{4}{5} = \frac{7}{1} \times \frac{2}{5} = \frac{14}{5} = 2\frac{4}{5}$ d) $\frac{3}{4} \times \frac{10}{3} = \frac{1}{2} \times \frac{5}{1} = \frac{5}{2} = 2\frac{1}{2}$

4: a) $\frac{9}{4} \div \frac{9}{10} = \frac{9}{4} \times \frac{10}{9} = \frac{1}{2} \times \frac{5}{1} = \frac{5}{2} = 2\frac{1}{2}$ b) $\frac{7}{4} \div \frac{2}{9} = \frac{7}{4} \times \frac{9}{2} = \frac{63}{8} = 7\frac{7}{8}$
c) $\frac{3}{7} \div \frac{8}{3} = \frac{3}{7} \times \frac{3}{8} = \frac{9}{56}$ d) $\frac{7}{9} \div \frac{7}{6} = \frac{7}{9} \times \frac{6}{7} = \frac{1}{3} \times \frac{2}{1} = \frac{2}{3}$

5: a) $\frac{7}{10} \times \frac{8}{7} = \frac{1}{5} \times \frac{4}{1} = \frac{4}{5}$ b) $\frac{3}{2} \div \frac{5}{7} = \frac{3}{2} \times \frac{7}{5} = \frac{21}{10} = 2\frac{1}{10}$
c) $\frac{9}{5} \div \frac{5}{6} = \frac{9}{5} \times \frac{6}{5} = \frac{54}{25} = 2\frac{4}{25}$ d) $\frac{4}{5} \times \frac{9}{4} = \frac{1}{5} \times \frac{9}{1} = \frac{9}{5} = 1\frac{4}{5}$

6: a) $\frac{10}{3} \times \frac{4}{3} = \frac{40}{9} = 4\frac{4}{9}$ b) $\frac{7}{2} \times \frac{7}{3} = \frac{49}{6} = 8\frac{1}{6}$
c) $\frac{10}{9} \times \frac{9}{7} = \frac{10}{1} \times \frac{1}{7} = \frac{10}{7} = 1\frac{3}{7}$ d) $\frac{7}{6} \times \frac{7}{4} = \frac{49}{24} = 2\frac{1}{24}$

7: a) $\frac{9}{2} \div \frac{5}{3} = \frac{9}{2} \times \frac{3}{5} = \frac{27}{10} = 2\frac{7}{10}$ b) $\frac{8}{7} \div \frac{8}{3} = \frac{8}{7} \times \frac{3}{8} = \frac{1}{7} \times \frac{3}{1} = \frac{3}{7}$
c) $\frac{3}{2} \div \frac{6}{5} = \frac{3}{2} \times \frac{5}{6} = \frac{1}{2} \times \frac{5}{2} = \frac{5}{4} = 1\frac{1}{4}$ d) $\frac{7}{5} \div \frac{9}{8} = \frac{7}{5} \times \frac{8}{9} = \frac{56}{45} = 1\frac{11}{45}$

8: a) $\frac{5}{2} \times \frac{9}{5} = \frac{1}{2} \times \frac{9}{1} = \frac{9}{2} = 4\frac{1}{2}$ b) $\frac{10}{7} \div \frac{8}{5} = \frac{10}{7} \times \frac{5}{8} = \frac{5}{7} \times \frac{5}{4} = \frac{25}{28}$
c) $\frac{7}{2} \div \frac{7}{4} = \frac{7}{2} \times \frac{4}{7} = \frac{1}{1} \times \frac{2}{1} = \frac{2}{1} = 2$ d) $\frac{5}{4} \times \frac{9}{2} = \frac{45}{8} = 5\frac{5}{8}$