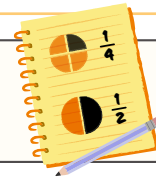


Dividing Fractions



Section A Reciprocals

1) Prove that $\frac{3}{4} \times \frac{4}{3} = 1$

2) Fill in the blanks:

a) $\frac{2}{3} \times \square = 1$

c) $1 = \frac{1}{2} \times \square$

b) $\square \times \frac{5}{7} = 1$

d) $\square \times 8 = 1$

Any number multiplied by its _____ is equal to 1.

3) Find the reciprocal of each of the following numbers:

a) $\frac{6}{11}$ \square

c) 5 \square

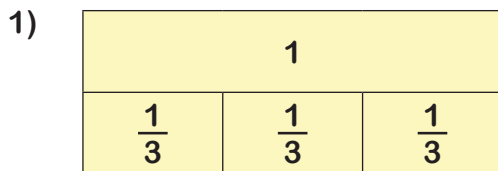
e) $\frac{8}{19}$ \square

b) $-\frac{2}{3}$ \square

d) $\frac{1}{2}$ \square

f) $4\frac{2}{3}$ \square

Section B Dividing integers by fractions



Explain how this diagram shows that $1 \div \frac{1}{3} = 3$.

2) Calculate the following:

a) $2 \div \frac{1}{3} = \square$

c) $10 \div \frac{2}{3} = \square$

e) $10 \div \frac{3}{5} = \square$

b) $2 \div \frac{2}{3} = \square$

d) $10 \div \frac{2}{5} = \square$

f) $21 \div 2\frac{1}{3} = \square$

Section C Dividing any pair of fractions

1) Calculate:

a) $\frac{1}{3} \div \frac{1}{3} = \square$

d) $\frac{5}{7} \div \frac{5}{12} = \square$

g) $\frac{9}{11} \div \frac{9}{11} = \square$

b) $\frac{2}{3} \div \frac{1}{2} = \square$

e) $-\frac{5}{12} \div \frac{4}{9} = \square$

h) $\frac{7}{12} \div \frac{3}{4} \div \frac{1}{2} = \square$

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

f) $2\frac{1}{8} \div \frac{9}{10} = \square$

i) $3\frac{1}{7} \div 5\frac{1}{2} = \square$

Dividing Fractions



Section D Identify and explain the mistake:

$$\begin{aligned}
 1) \quad \frac{6}{20} \div \frac{4}{3} &= \frac{20}{6} \times \frac{4}{3} \\
 &= \frac{80}{18} \\
 &= 4\frac{4}{9}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad \frac{3}{8} \div 4 &= \frac{3}{8} \times \frac{4}{1} \\
 &= \frac{12}{8} \\
 &= 1\frac{1}{2}
 \end{aligned}$$

Section E Simplify the following:

a) $\frac{a}{b} \div \frac{c}{d}$	d) $a \div \frac{b}{c}$	g) $\frac{2a}{b} \div \frac{2a^2}{7b}$
b) $\frac{a}{b} \div \frac{a}{c}$	e) $\frac{a}{b} \div c$	h) $\frac{a}{2} \div \frac{a}{2}$
c) $\frac{a}{7} \div \frac{2}{a}$	f) $\frac{2a}{b} \div \frac{c}{7b}$	i) $\frac{(x+1)}{7} \div \frac{(x+2)}{3}$

Section F Complete each puzzle below:

1) Use each of the following numbers to make the calculations correct.

1	2	2	3	3	5
5	7	9	10	18	35

$$\boxed{\quad} \div \boxed{\quad} = \boxed{\quad}$$

$$\boxed{\quad} \div \boxed{\quad} = \boxed{\quad}$$

2) Fill the gaps in the multiplication grid.

\times	$\frac{1}{2}$		
	4		
6		1	
	$2\frac{1}{2}$		$2\frac{2}{3}$