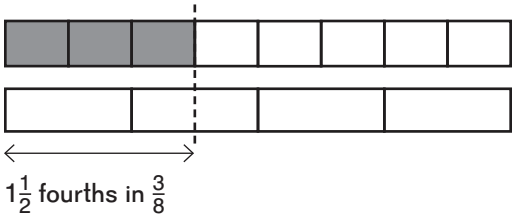
Divide Fractions (Enrichment)

Dimensions Math

$\frac{3}{8} \div \frac{1}{4} = ?$

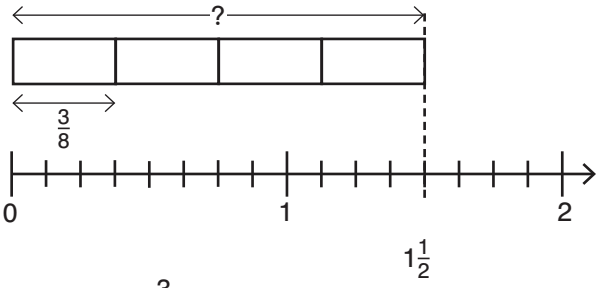
$? \times \frac{1}{4} = \frac{3}{8}$

How many $\frac{1}{4}$s in $\frac{3}{8}$?



$\frac{1}{4} \times ? = \frac{3}{8}$

$\frac{1}{4}$ of what is $\frac{3}{8}$?



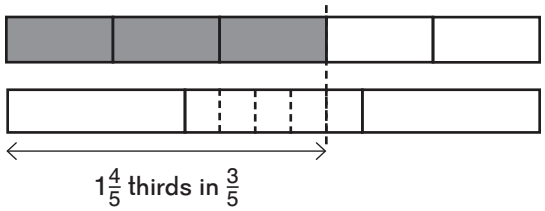
1 unit $\longrightarrow \frac{3}{8}$

4 units $\longrightarrow \frac{3}{8} \times 4 = \frac{3}{2}$

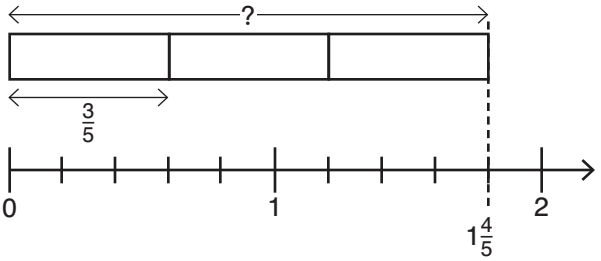
$\frac{3}{8} \div \frac{1}{4} = \frac{3}{8} \times 4 = \frac{3}{2} = 1\frac{1}{2}$

$\frac{3}{5} \div \frac{1}{3} = ?$

$? \times \frac{1}{3} = \frac{3}{5}$



$\frac{1}{3} \times ? = \frac{3}{5}$



1 unit $\longrightarrow \frac{3}{5}$

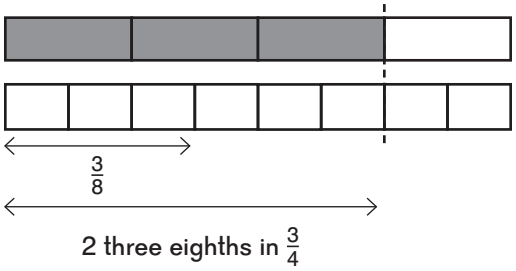
3 units $\longrightarrow \frac{3}{5} \times 3 = \frac{9}{5}$

$\frac{3}{5} \div \frac{1}{3} = \frac{3}{5} \times 3 = \frac{9}{5} = 1\frac{4}{5}$

Divide Fractions (Enrichment)

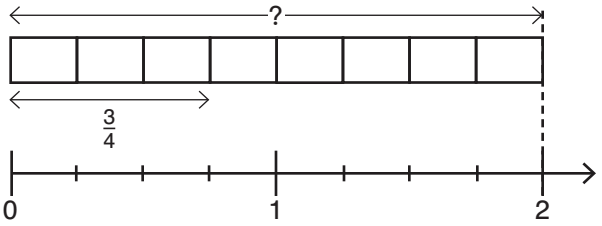
$\frac{3}{4} \div \frac{3}{8} = ?$

$? \times \frac{3}{8} = \frac{3}{4}$



2 three eighths in $\frac{3}{4}$

$\frac{3}{8} \times ? = \frac{3}{4}$



3 units $\longrightarrow \frac{3}{4}$

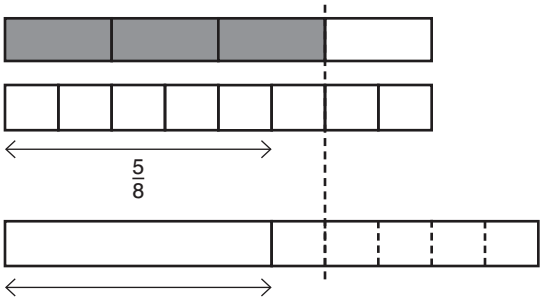
1 unit $\longrightarrow \frac{3}{4} \times \frac{1}{3}$

8 units $\longrightarrow \frac{3}{4} \times \frac{1}{3} \times 8 = \frac{3}{4} \times \frac{8}{3} = 2$

$\frac{3}{4} \div \frac{3}{8} = \frac{3}{4} \times \frac{8}{3} = 2$

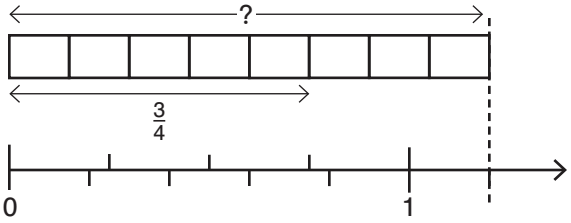
$\frac{3}{4} \div \frac{5}{8} = ?$

$? \times \frac{3}{8} = \frac{3}{4}$



$1\frac{1}{5}$ five eighths in $\frac{3}{4}$

$\frac{3}{8} \times ? = \frac{3}{4}$



5 units $\longrightarrow \frac{3}{4}$

1 unit $\longrightarrow \frac{3}{4} \times \frac{1}{5}$

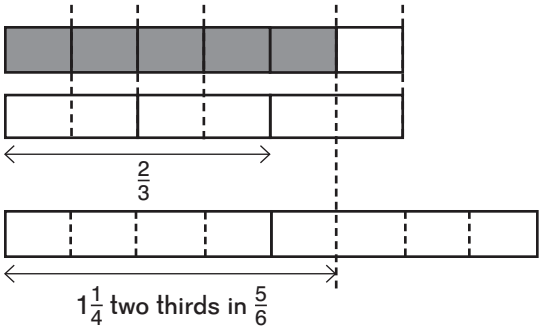
8 units $\longrightarrow \frac{3}{4} \times \frac{1}{5} \times 8 = \frac{3}{4} \times \frac{8}{5} = \frac{6}{5}$

$\frac{3}{4} \div \frac{5}{8} = \frac{3}{4} \times \frac{8}{5} = \frac{6}{5} = 1\frac{1}{5}$

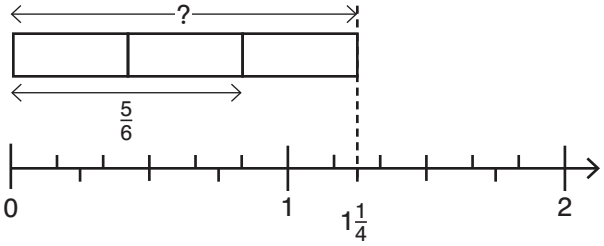
Divide Fractions (Enrichment)

$\frac{5}{6} \div \frac{2}{3} = ?$

$? \times \frac{2}{3} = \frac{5}{6}$



$\frac{2}{3} \times ? = \frac{5}{6}$



2 units $\longrightarrow \frac{5}{6}$

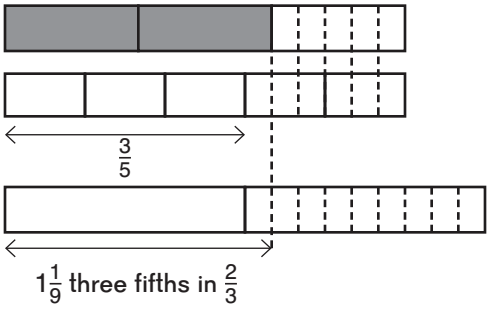
1 unit $\longrightarrow \frac{5}{6} \times \frac{1}{2}$

3 units $\longrightarrow \frac{5}{6} \times \frac{1}{2} \times 3 = \frac{5}{6} \times \frac{3}{2} = \frac{5}{4}$

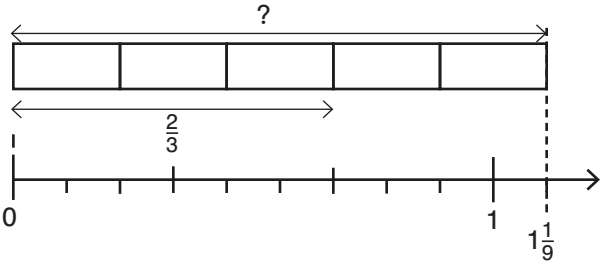
$\frac{5}{6} \div \frac{2}{3} = \frac{5}{6} \times \frac{3}{2} = \frac{3}{2} = 1\frac{1}{2}$

$\frac{2}{3} \div \frac{3}{5} = ?$

$? \times \frac{3}{5} = \frac{2}{3}$



$\frac{3}{5} \times ? = \frac{2}{3}$



3 units $\longrightarrow \frac{2}{3}$

1 unit $\longrightarrow \frac{2}{3} \times \frac{1}{3}$

5 units $\longrightarrow \frac{2}{3} \times \frac{1}{3} \times 5 = \frac{2}{3} \times \frac{5}{3} = \frac{10}{9}$

$\frac{2}{3} \div \frac{3}{5} = \frac{2}{3} \times \frac{5}{3} = \frac{10}{9} = 1\frac{1}{9}$

Divide Fractions (Enrichment)

1 (a) $\frac{2}{5} \div \frac{1}{10}$

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

(c) $\frac{2}{5} \div \frac{1}{6}$

(d) $\frac{2}{3} \div \frac{2}{9}$

(e) $\frac{5}{6} \div \frac{2}{3}$

(f) $\frac{2}{3} \div \frac{3}{5}$

2 A drop of water is about $\frac{1}{20}$ mL. How many such drops of water are needed to have $\frac{3}{5}$ mL of water?

3 It takes Marty $\frac{2}{3}$ h to paint $\frac{3}{4}$ of a room. How long would it take to paint the whole room?

Answers

1 (a) 4 (b) $\frac{2}{3}$ (c) $2\frac{1}{5}$ (d) 3 (e) $\frac{5}{4}$ (f) $1\frac{1}{9}$ **2** 12 drops **3** $1\frac{1}{8}$ h