

A Fill in the missing numerator or denominator.

$$\frac{3}{4} = \frac{12}{16}$$

$$\frac{2}{3} = \frac{8}{12}$$

$$\frac{7}{8} = \frac{21}{24}$$

$$\frac{5}{6} = \frac{15}{18}$$

$$\frac{4}{5} = \frac{40}{50}$$

$$\frac{3}{10} = \frac{30}{100}$$

Write each fraction in its simplest form.

$$\frac{9}{12} = \frac{3}{4}$$

$$\frac{12}{18} = \frac{2}{3}$$

$$\frac{20}{25} = \frac{4}{5}$$

$$\frac{24}{30} = \frac{4}{5}$$

$$\frac{70}{100} = \frac{7}{10}$$

$$\frac{45}{100} = \frac{9}{20}$$

Change each improper fraction to a mixed number.

$$\frac{19}{4} = 4\frac{3}{4}$$

$$\frac{31}{5} = 6\frac{1}{5}$$

$$\frac{43}{8} = 5\frac{3}{8}$$

$$\frac{29}{6} = 4\frac{5}{6}$$

$$\frac{77}{10} = 7\frac{7}{10}$$

$$\frac{40}{3} = 13\frac{1}{3}$$

Change each mixed number to an improper fraction.

$$7\frac{3}{4} = \frac{31}{4}$$

$$8\frac{2}{3} = \frac{26}{3}$$

$$5\frac{4}{5} = \frac{29}{5}$$

$$9\frac{7}{10} = \frac{97}{10}$$

$$4\frac{7}{8} = \frac{39}{8}$$

$$10\frac{5}{6} = \frac{65}{6}$$

B Write as a fraction in its simplest form.

50 of 75	$\frac{2}{3}$
30p of £1.00	$\frac{3}{10}$
25cm of 1m	$\frac{1}{4}$
12kg of 30kg	$\frac{2}{5}$
70 of 100	$\frac{7}{10}$
800g of 1kg	$\frac{4}{5}$
400ml of 2l	$\frac{1}{5}$
45 of 100	$\frac{9}{20}$

C Find

$\frac{3}{5}$ of 70	42
$\frac{5}{8}$ of 64	40
$\frac{7}{10}$ of £1.20	84p
$\frac{5}{6}$ of 42l	35l
$\frac{4}{7}$ of 350g	200g
$\frac{13}{100}$ of £1.00	13p
$\frac{2}{3}$ of 1200	800
$\frac{35}{100}$ of 1kg.	350g

Find the whole when

$\frac{1}{6}$ is 35	210
$\frac{3}{4}$ is 27p	36p
$\frac{4}{5}$ is 36cm	45cm
$\frac{7}{10}$ is £1.40	£2.00
$\frac{2}{3}$ is 800g	1200g
$\frac{5}{9}$ is 5000	9000
$\frac{3}{8}$ is 24l	64l
$\frac{9}{20}$ is £1.80	£4.00

D Write as percentages.

a 33 out of 100	33%	b 87 out of 100	87%	c 9 out of 100	9%	d 45 out of 100	45%
a 0.65	65%	b 0.38	38%	c 0.75	75%	d 0.3	30%
a $\frac{29}{100}$	29%	b $\frac{56}{100}$	56%	c $\frac{1}{100}$	1%	d $\frac{13}{100}$	13%

Change each fraction first to hundredths, then write it as a percentage.

a $\frac{19}{50} = \frac{38}{100} = 38\%$	b $\frac{3}{25} = \frac{12}{100} = 12\%$	c $\frac{13}{20} = \frac{65}{100} = 65\%$
a $\frac{3}{4} = \frac{75}{100} = 75\%$	b $\frac{4}{5} = \frac{80}{100} = 80\%$	c $\frac{7}{10} = \frac{70}{100} = 70\%$

Fill the blank spaces in each of the columns. The first is done for you.

	a	b	c	d	e	f	g	h	i	j	k	l	m
Fraction in its simplest form	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{4}$	$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{4}{5}$	$\frac{1}{10}$	$\frac{3}{10}$	$\frac{7}{10}$	$\frac{9}{10}$	$\frac{1}{20}$	$\frac{1}{100}$
Decimal fraction	0.5	0.25	0.75	0.2	0.4	0.6	0.8	0.1	0.3	0.7	0.9	0.05	0.01
Percentage	50%	25%	75%	20%	40%	60%	80%	10%	30%	70%	90%	5%	1%

E Find the value of

25% of 120	30
50% of 35	$17\frac{1}{2}$
75% of 400	300
10% of 1000	100
30% of 90	27
70% of 200	140
90% of 160	144
20% of 95p	19p
40% of £20	£8.00
60% of £15.	£9.00

Find the value of

50% of 14p	7p
20% of £6.50	£1.30
100% of 93p	93p
10% of 2.5kg	250g
5% of 4l	200ml
30% of 2m	60cm
1% of £1.00	1p
7% of £1.00	7p
3% of £3.00	9p
12% of £9.00.	£1.08

F Find as a percentage

6 of 24	25%
$7\frac{1}{2}$ of 15	50%
40p of 50p	80%
93p of 93p	100%
200g of $\frac{1}{2}$ kg	40%
700ml of 1l	70%
25p of £2.50	10%
£1.50 of £2.00	75%
7p of £1.00	7%
30cm of 1.5m.	20%