

Fraction	Percentage
1	100%
$\frac{1}{2}$	50%
$\frac{1}{3}$	$33\frac{1}{3}\% = 33.33\%$
$\frac{1}{4}$	25%
$\frac{1}{5}$	20%
$\frac{1}{6}$ →	$16\frac{2}{3}\% = 16.66\%$
$\frac{1}{7}$ →	$14\frac{2}{7}\% = 14.28\%$
$\frac{1}{8}$ →	$12\frac{1}{2}\% = 12.5\%$
$\frac{1}{9}$ →	$11\frac{1}{9}\% = 11.11\%$

Fraction	Percentage
$\frac{1}{10}$	10%
$\frac{1}{11}$ →	$9\frac{1}{11}\% = 9.09\%$
$\frac{1}{12}$ →	$8\frac{1}{3}\% = 8.33\%$
$\frac{1}{14}$ →	$7\frac{1}{7}\% = 7.14\%$
$\frac{1}{15}$ →	$6\frac{2}{3}\% = 6.66\%$
$\frac{1}{16}$ →	$6\frac{1}{4}\% = 6.25\%$

Fraction	Percentage
$\frac{1}{20}$ →	5%
$\frac{1}{24}$ →	$4\frac{1}{6}\% = 4.16\%$
$\frac{1}{25}$ →	4%
$\frac{1}{30}$ →	$3\frac{1}{3}\% = 3.33\%$
$\frac{1}{50}$ →	2%

$$\frac{1}{13} \rightarrow 7.69\%$$

$$\frac{1}{40} \rightarrow 2.5\%$$



fraction से %



$$\begin{aligned} \frac{1}{3} &= 33\frac{1}{3}\% \approx 33.33\% \\ \times 2 \quad \frac{2}{3} &= 66\frac{2}{3}\% \approx 66.66\% \end{aligned}$$

$$\frac{1}{6} = 16\frac{2}{3}\%$$

$$\frac{5}{6} = 1 - \frac{1}{6} = 100\% - 16\frac{2}{3}\% = 83\frac{1}{3}\%$$

$$\begin{aligned} \frac{1}{4} &= 25\% \\ \times 3 \quad \frac{3}{4} &= 75\% \end{aligned}$$

$$\begin{aligned} \frac{1}{7} &= 14\frac{2}{7}\% \approx 14.28\% \\ \times 5 \quad \frac{5}{7} &= \left(70 + \frac{10}{7}\right)\% = \left(70 + 1\frac{3}{7}\right)\% = 71\frac{3}{7}\% \checkmark \end{aligned}$$

$\frac{2}{7} = 28\frac{4}{7}\% \approx 28.56\%$

$$\begin{aligned} \frac{1}{5} &= 20\% \\ \times 2 \quad \frac{2}{5} &= 40\% \checkmark \\ \times 3 \quad \frac{3}{5} &= 60\% \checkmark \\ \times 7 \quad \frac{7}{5} &= 140\% \end{aligned}$$

$$\begin{aligned} (33 + \frac{1}{3}) \times 2 \\ 66 + \frac{2}{3} \\ = 66\frac{2}{3} \end{aligned}$$

$$\begin{aligned} \frac{1}{8} &= 12.5\% \\ \times 3 \quad \frac{3}{8} &= 37.5\% \\ \times 5 \quad \frac{5}{8} &= 62.5\% \checkmark \\ \times 7 \quad \frac{7}{8} &= 87.5\% \end{aligned}$$



$$\begin{array}{l}
 \frac{1}{6} \rightarrow 16\frac{2}{3}\% \\
 \times 5 \swarrow \\
 \frac{5}{6} \rightarrow \left(80 + 3\frac{1}{3}\right)\% = 83\frac{1}{3}\%
 \end{array}$$

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

$$= 100\% - 16\frac{2}{3}\% = 83\frac{1}{3}\%$$



EXAMPLE

$$16 + 3\frac{2}{5} = 19\frac{2}{5}$$

Trick $\Rightarrow$

$$16 - 3\frac{2}{5} = 12\frac{3}{5}$$

~~$$\begin{aligned}
 16 - 3\frac{2}{5} &= 16 - \left(3 + \frac{2}{5}\right) \\
 &= 16 - 3 - \frac{2}{5} \\
 &= 13 - \frac{2}{5} \\
 &= 12 + \left(1 - \frac{2}{5}\right) \\
 &= 12 + \frac{3}{5} = 12\frac{3}{5} \checkmark
 \end{aligned}$$~~

$$87 - 25\frac{11}{19} = 61\frac{8}{19} \checkmark$$

$$109 - 51\frac{13}{27} = 57\frac{14}{27} \checkmark$$

EXAMPLE

$$\frac{1}{9} \rightarrow 11\frac{1}{9}\% \approx 11.11\%$$

$$\frac{2}{9} \rightarrow 22\frac{2}{9}\% \approx 22.22\%$$

$$\frac{7}{9} \rightarrow 77\frac{7}{9}\% \approx 77.77\%$$

$$\frac{1}{10} \rightarrow 10\%$$

$$\frac{3}{10} \rightarrow 30\%$$

$$\frac{17}{10} \rightarrow 170\%$$

$$\frac{1}{11} \rightarrow 9.09\%$$

$$\frac{2}{11} \rightarrow 18.18\%$$

$$\frac{5}{11} \rightarrow 45.45\%$$



EXAMPLE

$$\frac{1}{12} \rightarrow 8\frac{1}{3}\%$$

$$\frac{5}{12} \rightarrow 41\frac{2}{3}\%$$

$$\approx 41.66\%$$

$$\frac{1}{15} \rightarrow 6\frac{2}{3}\% \approx 6.66\%$$

$$\frac{4}{15} \rightarrow 26\frac{2}{3}\%$$

$$\frac{1}{16} \rightarrow 6.25\%$$

$$\frac{3}{16} \rightarrow 18.75\%$$

$$\frac{7}{16} \rightarrow 43.75\%$$

$$1.25 = \frac{5}{4}$$

$$.75 = \frac{3}{4}$$

$$.25 = \frac{1}{4}$$

$$.5 = \frac{1}{2}$$

$$\frac{1}{9} \rightarrow .11 \dots$$

$$\frac{1}{8} = .125$$

$$\frac{1}{16} = .0625$$

$$\frac{1}{3} \rightarrow .33 \dots$$

$$\frac{1}{6} \rightarrow .166 \dots$$

$$\frac{2}{3} \rightarrow .66 \dots$$

$$40 + 1\frac{2}{3}$$

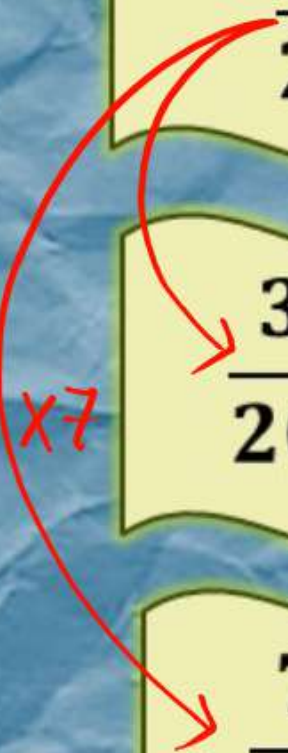


EXAMPLE

$$\frac{1}{20} \rightarrow 5\%$$

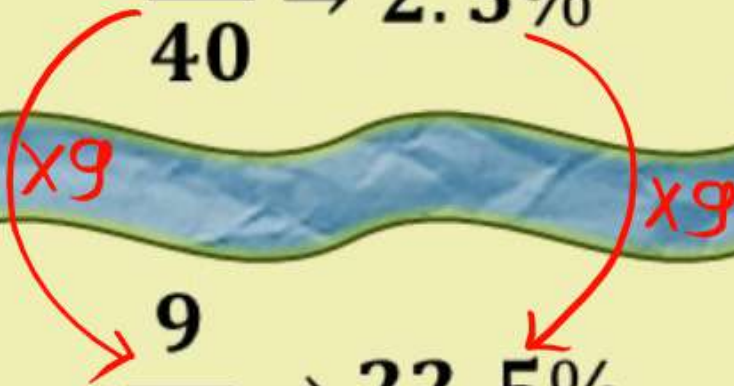
$$\frac{3}{20} \rightarrow 15\% \checkmark$$

$$\frac{7}{20} \rightarrow 35\%$$

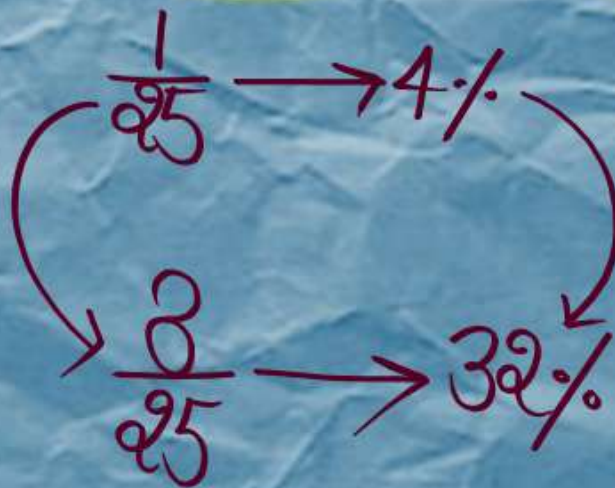


$$\frac{1}{40} \rightarrow 2.5\%$$

$$\frac{9}{40} \rightarrow 22.5\%$$



$$\frac{1}{25} \rightarrow 4\%$$

$$\frac{8}{25} \rightarrow 32\%$$




$$\begin{array}{l}
 \frac{1}{16} \rightarrow 6.25\% \\
 \quad \searrow \\
 \frac{1}{32} \rightarrow 3.125\% \\
 \quad \swarrow \times 3 \\
 \frac{3}{32} \rightarrow 9.375\%
 \end{array}$$

$$\begin{array}{l}
 \frac{1}{8} \rightarrow 12.5\% \\
 \quad \searrow \div 10 \\
 \frac{1}{80} \rightarrow 1.25\%
 \end{array}$$





EXAMPLE

$$\frac{15}{37} \rightarrow \frac{15}{37} \times 100 \% \approx 40.5\%$$

$$\begin{array}{r} 37 \overline{) 1500} (40.5 \\ \underline{148} \\ 200 \\ \underline{185} \end{array}$$



#

$$\frac{8}{7} = 1 + \frac{1}{7} = 100\% + 14.28\% \approx 114.28\%$$

$$\frac{22}{9} \rightarrow 2 + \frac{4}{9} = 200\% + 44.44\% \approx 244.44\%$$

$$\frac{71}{12} \rightarrow 6 - \frac{1}{12} = 600\% - 8\frac{1}{3}\% = 591\frac{2}{3}\%$$





Percentage to Fraction Conversion (भिन्न रूपांतरण का प्रतिशत)



$$\begin{aligned} 33.33\% &\rightarrow \frac{1}{3} \\ 66.66\% &\rightarrow \frac{2}{3} \end{aligned}$$

$$\begin{aligned} 25\% &\rightarrow \frac{1}{4} \\ 175\% &\rightarrow \frac{7}{4} \end{aligned}$$

$$\begin{aligned} 20\% &\rightarrow \frac{1}{5} \\ 60\% &\rightarrow \frac{3}{5} \end{aligned}$$

$$\begin{aligned} 12.5\% &= \frac{1}{8} \\ 37.5\% &= \frac{3}{8} \\ 62.5\% &= \frac{5}{8} \end{aligned}$$

$$\begin{aligned} 11.11\% &= \frac{1}{9} \\ 44.44\% &= \frac{4}{9} \\ 55.55\% &= \frac{5}{9} \end{aligned}$$

$$\begin{aligned} 10\% &= \frac{1}{10} \\ 70\% &= \frac{7}{10} \end{aligned}$$

$$\begin{aligned} 4\% &\rightarrow \frac{1}{25} \\ 36\% &\rightarrow \frac{9}{25} \\ 9.09\% &\rightarrow \frac{1}{11} \\ 27.27\% &\rightarrow \frac{3}{11} \\ 63.63\% &\rightarrow \frac{7}{11} \end{aligned}$$



$$14\frac{2}{7}\% = 14.28\% \longrightarrow \frac{1}{7}$$

$$28.56\% \longrightarrow \frac{2}{7}$$

$$57\frac{1}{7}\% \longrightarrow \frac{4}{7}$$



Percentage to Fraction Conversion (भिन्न रूपांतरण का प्रतिशत)



$$14.28\% \rightarrow \frac{1}{7}$$

$$42.84\% \rightarrow \frac{3}{7}$$

$$6.25\% \rightarrow \frac{1}{16}$$

$$31.25\% \rightarrow \frac{5}{16}$$

x5

$$2.5\% \rightarrow \frac{1}{40}$$

$$7.5\% \rightarrow \frac{3}{40}$$

$$22.5\% \rightarrow \frac{9}{40}$$



$$28.33\% = 20\% + 8.33\%$$

$$= \frac{1}{5} + \frac{1}{12} = \frac{17}{60} \checkmark$$

$$46.25\% = 40\% + 6.25\%$$

$$= \frac{2}{5} + \frac{1}{16} = \frac{37}{80}$$

$$36\frac{2}{3}\% = 30\% + 16\frac{2}{3}\%$$

$$= \frac{1}{5} + \frac{1}{6} = \frac{11}{30}$$



$$29\frac{1}{6}\% \rightarrow 25\% + 4\frac{1}{6}\%$$

$$= \frac{1}{4} + \frac{1}{24} = \frac{6+1}{24} = \frac{7}{24}$$

$$29\frac{1}{6}\% = \frac{175}{6}\% = \frac{\overset{7}{\cancel{175}}}{6} \times \frac{\cancel{100}}{4} = \frac{7}{24}$$



$$23.33\% \rightarrow 33.33\% - 10\%$$

$$= \frac{\cancel{1}^1}{\cancel{3}_3} \times \frac{\cancel{1}^1}{\cancel{10}_10}$$

$$= \frac{7}{30}$$



Percentage more than 100%

$$\diamond 116.66\% = 100\% + 16.66\% = 1 + \frac{1}{6} = \frac{7}{6}$$

$$\diamond 228.56\% = 200\% + 28.56\% = 2 + \frac{2}{7} = \frac{16}{7}$$

$$335\frac{5}{7}\% = 300\% + 35\frac{5}{7}\%$$

$$= 3 + \frac{5}{14}$$

$$= \frac{47}{14}$$

$$537.5\% \rightarrow 500\% + 37.5\% \\ = 5 + \frac{3}{8} = \frac{43}{8}$$

