

/ Tenths
 / hundredths
 / thousandths
 / ten thousandths
 .0000

$$\begin{array}{r} 55 \\ \hline 10000 \end{array}$$

(4) .0033
 (5)

Number →

Move
two Left
→ Percent

$$\left(\frac{1}{2} = .5 = 50\% \right)$$

⑤

$$2\frac{1}{2} = 2.50 = 250\%$$

⑥

$$9\frac{3}{4} = 9.75 = 975\%$$

⑦

$$4\frac{1}{5} = 4.20 = 420\%$$

$$4.20 =$$

$$\frac{1}{5} = .20$$

$$\frac{1}{5} = \frac{20}{100}$$

x20

$$7\frac{3}{10} = 7.30 = 730\%$$

$$8.5 = ? \quad 8.50 = 850\%$$

18%

$$= \frac{18}{100} \stackrel{\times 3}{=} \frac{54}{300} \stackrel{\times 3}{=}$$

$$\begin{array}{r} 2 \overline{) 18} \\ \underline{36} \\ 54 \end{array}$$

 $a) 54$

How do you take a percent of a number?

You can use equivalent fractions or decimals.

EX) $\frac{100\% + 28\%}{550 + 1}$ of 550

b) $\frac{128}{100} \cdot \frac{550}{1} =$

Fraction Way

25 into 100
4.
goes 20 = 500

$$\left\{ \begin{array}{l} \frac{64}{50} \cdot \frac{550}{1} \\ \frac{32}{25} \cdot \frac{550}{1} \end{array} \right.$$

32.22 =

$$\begin{array}{r} 32 \\ \times 22 \\ \hline 64 \\ 640 \\ \hline 704 \end{array}$$

Decimal

128% = 1.28

$$\begin{array}{r} 550 \\ \times 1.28 \\ \hline 4400 \\ 11000 \\ 55000 \\ \hline 70400 \end{array}$$

∴ 321 hw

$$c) 0.3\% = \frac{3}{1000} =$$

$$\frac{3}{\frac{1000}{5}} \cdot \overset{1}{200} = \frac{3}{5}$$

or

$$200 \times .003 \left\{ \begin{array}{r} .003 \\ 200 \\ \hline 00600 \end{array} \right.$$

By fraction

① Change % to $\frac{9}{100}$

② multiply by fraction

By decimal

$$\frac{3}{5} = .6$$

d) .85% of 600

By fraction

By decimal

$\frac{1}{2} = .5 = 50\%$
by fraction

① convert % to fraction
then multiply

By decimal

$$\frac{550}{25}$$

$$25 \overline{) 100} \begin{array}{l} 4 \\ \hline \end{array}$$

$$25 \overline{) 500} \begin{array}{l} 20 \\ \hline \end{array}$$

$$25 \overline{) 50} \begin{array}{l} 2 \\ \hline \end{array}$$

$$25 \overline{) 550} \begin{array}{l} 22 \\ \hline \end{array}$$

$$\begin{array}{ccc} & \downarrow \div 3 & \\ \# \frac{3 \text{ hr}}{12} & = & \frac{1 \text{ hr}}{\# 4} \\ & \uparrow \div 3 & \end{array}$$

$$\begin{array}{ccc} & \div 9 & \\ \frac{9 \text{ hr}}{\# 36} & = & \frac{1 \text{ hr}}{4 \text{ hr}} \end{array}$$

① Set up ratios

② reduce fractions

②

$$\begin{array}{l} \text{\$ } \frac{12}{3} \text{ paperback} \\ \text{\% } 3 \end{array}$$

$$\frac{4}{1}$$

$$\begin{array}{l} \text{\$ } \frac{28}{7} \div 7 \\ \div 7 \end{array} = \frac{4}{1}$$



④

$$\frac{12 \text{ min}}{30 \text{ laps}} \xrightarrow{\cdot 4} \frac{48 \text{ min}}{120 \text{ laps}}$$

$$\frac{48 \text{ min}}{120 \text{ laps}} = \frac{.4 \text{ unit}}{1 \text{ Rater}}$$

$$\frac{48 \text{ min}}{120 \text{ laps}} \begin{matrix} \div 4 \\ \div 4 \end{matrix} = \frac{12 \text{ min}}{30 \text{ laps}}$$

$$\frac{.4}{1 \text{ lap}}$$

$$30 \overline{) 12.0}$$

$$120 \overline{) 48.0}$$

①

$$\frac{45 \text{ cookies}}{15 \text{ student}} = \frac{? \text{ cookies}}{30 \text{ students}}$$

• 2 ↘ (90)

→ • 2 →

4+4+2
" "

②

$$\frac{4 \text{ students}}{\$12} = \frac{10 \text{ students}}{30}$$

• 2½

12+12+6

= 30

• 5 ↘

$$\frac{2 \text{ student}}{\$6} = \frac{10 \text{ students}}{\$30}$$

• 5 ↗

① Set up ratios

② determine what needs to happen to get the denominator or numerator the same.

③ Carry out • or ÷

If you can't get there by multi/div. then find a common multiple

$$\frac{1}{3} \frac{A}{12} = \frac{10}{?}$$

$$30 = ?$$

#3)

$$\frac{120 \text{ gl}}{4 \text{ days}} = \frac{30 \text{ gallons}}{1 \text{ day}} \leftarrow \text{Unit Rate}$$

$$\frac{120 \text{ gl}}{4 \text{ day}} \times 7 = \frac{840 \text{ gallons}}{28 \text{ day}}$$

$$\begin{array}{r} 120 \\ \underline{840} \end{array}$$

Q

$$\frac{30 \text{ gl}}{1 \text{ day}} \xrightarrow{\cdot 28} \frac{840 \text{ gl.}}{28 \text{ day}}$$

$$\begin{array}{r} 28 \\ \underline{30} \\ 840 \end{array}$$

Comparing Ratios

① Calculate unit rate.

#4

$$\frac{10 \text{ min}}{700 \text{ beats}}$$

=

$$\frac{1 \text{ min}}{70 \text{ beats}}$$

$$\begin{aligned} & \cdot 2 \quad \swarrow \\ & = \frac{2 \text{ min}}{140 \text{ beats}} \\ & \cdot 2 = \end{aligned}$$

231
#5)

$$\frac{8 \text{ pr}}{\$12} = \frac{2 \text{ pr}}{\$3} = \frac{1 \text{ pr}}{\$1.50}$$

$$\frac{3 \text{ pr}}{\$6} = \frac{1 \text{ pr}}{\$2}$$

- ① set up ratios
- ② either get a unit rate or get equivalent fractions
- ③ compare quantities

770 .356 5696

.