

1165

9-11-13

sec 2.4

(19)

$$0.25\% = \frac{0.25}{100} = 0.0025$$

← TWICE

$$= 0.0025$$

(21)

$$0.2\% = \frac{0.2}{100} = 0.002$$

note:  $0.002 = \frac{2}{1000}$

M104  
idea

(23)

$$175\% = 175\frac{0}{10}$$

$$= 1.75$$

note:  $100\% = 1$

Note:  $200\% = 2$  (2)

$2000\% = 20$

DO NOT SOLVE

(1.)

What percent of 57 is 23?

$$x \cdot 57 = 23$$

What?  
x-files

what = x  
= variable  
you want  
to FIND.

$$57x = 23$$

(d.)  $n \cdot 57 = 23$

$$57n = 23$$

(3.)

23 is 57% of what?

$$23 = 0.57 \cdot x$$

$$23 = 0.57 \cdot n$$

(e.)



(37.)  $1.8 \xrightarrow{\text{twice}} = 1.80 \xrightarrow{\text{twice}} = 180\%$

(39.)  $\frac{3}{5} = 0.6 = 60\%$

$$\begin{array}{r} 0.6 \\ \hline 5 \overline{) 3.0} \\ \underline{30} \end{array}$$

NOTE: DRILL

$0.5 = 50\%$

$0.1 = 10\%$

$0.9 = 90\%$

$1 = 100\%$

4.

14

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

$$= 32.0\%$$

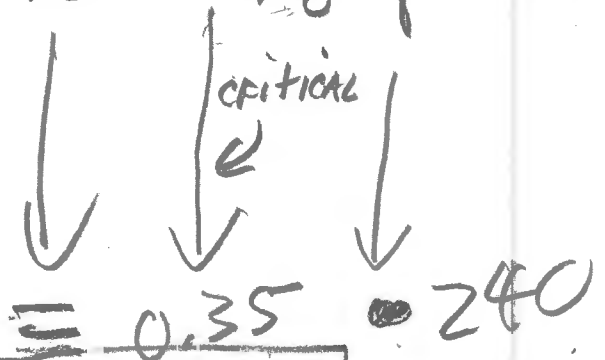
$$= 32\%$$

$$\begin{array}{r} 0.32 \\ \hline 25 \overline{) 8.00} \\ \underline{- 75} \phantom{0} \\ 50 \\ \underline{- 50} \\ 0 \end{array}$$

note: 84 is 35% of 240.  
 what number is 35% of 240?

52

# = NUMBER



$$\begin{array}{r} 1 \\ 2 \\ 240 \\ \underline{0.35} \rightarrow 2 \text{ digits} \\ 1200 \\ \underline{720} \\ 8400 \end{array} = 84.00 = 84$$

$$\begin{array}{|l} n \\ \hline n = 84 \end{array}$$

47.

14 is 30% of what?

STUDENT WORK →

14 = 0.30 x

clear decimal; use 100.

100 \* 14 = 100 \* 0.30 x

1400 = 30 x

1400 / 30 = ~~30x~~ / ~~30~~

100 \* 0.30 → twice

= 30.

= 30

46.6.....

Handwritten long division: 3 | 140.0, showing steps: 12, 20, 18, 20.

~~1400~~ / ~~30~~ = x

140 / 3 = x

46.6 = x, with an arrow pointing to the 6 and the text '6 repeats'.

14 is 30% of 46.6. ANSWER

(4)

(45.)

what percent of 150 is 39?

$$n \cdot 150 = 39$$

$$150n = 39$$

$$\frac{150}{150} n = \frac{39}{150}$$

$$n = \frac{39}{150}$$

$$n = 0.26$$

→  
twice

$$n = 26\%$$

$$\begin{array}{r}
 0.26 \\
 \hline
 3 \overline{) 39.00} \\
 \underline{300} \phantom{0} \\
 900 \\
 \underline{900} \\
 0
 \end{array}$$

Answer: 26% of 150 is 39 !

17

(65)

college graduation

= theme.

125 units to complete.

she/he completed 60% of 125.

60% = 0.60.

⇒ n = 0.60 · 125

# of units is 60% of 125

what number is 60% of 125?

$$\begin{array}{r}
 13 \\
 125 \\
 \hline
 0.60 \leftarrow 2 \text{ digits behind.} \\
 000 \\
 \hline
 750 \\
 \hline
 75.00
 \end{array}$$

$$n = 0.60 \cdot 125$$

$$= 75.00 = 75 \text{ units}$$

(65) 75 is 60% of 125

(67) batting average.

216 hits

average 0.363

36.3% of bats were hits

NOTE # HITS  $\leq$  # BATS

FIND # of Bats

$$(\# \text{ hits}) = 0.363 \cdot (\# \text{ bats})$$

# of hits is 36.3% of # of bats





83

Reducing sales tax.

(11)

$$\text{BILL} = \$157.41$$

TAX 6%

$$157.41 = x \cdot (1 + 0.06)$$

$$157.41 = x + 0.06x$$

$$157.41 = x \cdot (1.06)$$

$$157.41 = 1.06 \cdot x$$

12% tax; BILL \$500

QUICK  
EXAMPLE:

$$500 = x + 0.12x$$

x = sticker price = price on label

12

83.

$$\frac{157.41}{1.06} = \frac{1.06 \cdot X}{1.06}$$

$$\frac{157.41}{1.06} = X$$

$1.06 \overline{) 157.41}$   
 → 2 places →  
 $148.50 = \$148.50$

$106 \overline{) 15741.00}$   
 $- 106 \downarrow$   
 $\hline 514$   
 $- 424 \downarrow$   
 $\hline 900$   
 $- 848 \downarrow$   
 $\hline 530$   
 $\hline 530$   
 $\hline 00$

Real price without TAX.

2.5

example

problem

- 1 → 10
- 2 → 15
- 3 → 37, 39
- 4 → 27
- 5 → 47
- 6 → 33

(10)

anchorage

LOCATION of MUSKER

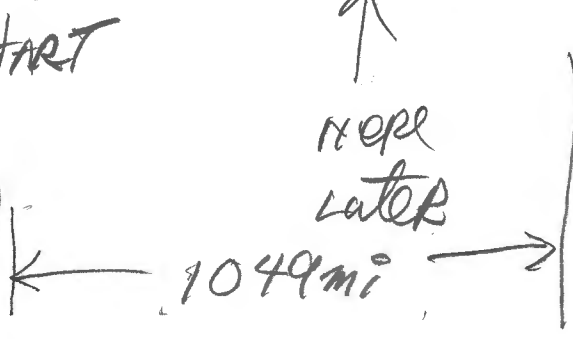
NAME



$2d + d = 1049$

$3d = 1049$

$\frac{3d}{3} = \frac{1049}{3} \Rightarrow d = \frac{1049}{3}$



$$\frac{1049}{3} \Rightarrow$$

$$\begin{array}{r} 349.666\dots \\ \hline 3 \overline{) 1049.000} \\ \underline{-96} \phantom{00} \\ 14 \phantom{00} \\ \underline{-12} \phantom{00} \\ 29 \phantom{00} \\ \underline{-27} \phantom{00} \\ 20 \phantom{00} \\ \underline{-18} \phantom{00} \\ 20 \phantom{00} \end{array}$$

$d = 349.6$  mi  
from Nome

$2d = 699.3$  from  
anchorage.

Quiz 4 Monday 9-16

Quiz 3

2.1 and

IN CLASS

TAKE HOME

Quiz 4

2.1, 2.2, 2.3,

2.4, 2.5?

a little

TAKE HOME