

Ch 5 Test Review

① Basketballs : Baseballs

4 : 6 or 2 : 3
Part-to-Part

② soccer balls to sporting balls

10 to 20 or 5 to 10 or 1 to 2
Part-to-Whole

③

3	27
5	45

$\times 9$ (from 3 to 27)
 $\times 9$ (from 5 to 45)

④

18	3
12	2

$\div 6$ (from 18 to 3)
 $\div 6$ (from 12 to 2)

⑤

6	24	1
24	96	4

$\times 4$ (from 6 to 24)
 $\times 4$ (from 24 to 96)
 $\div 6$ (from 1 to 4)
 $\div 6$ (from 24 to 96)

⑥

7	21	$\frac{7}{3}$ or $2\frac{1}{3}$
9	27	3

$\div 3$ (from 7 to 21)
 $\div 3$ (from 9 to 27)
 $\div 3$ (from 21 to 3)

⑦ 240 miles in 4 hours

Unit rate =
how far in 1 hour

Method 1:

miles	240	60
time	4	1

$\div 4$ (from 240 to 60)
 $\div 4$ (from 4 to 1)

$$\begin{array}{r} 60 \\ 4 \overline{) 240} \\ \underline{-24} \\ 00 \\ \underline{-00} \\ 0 \end{array}$$

Method 2:

$$240 \div 4$$

$$\begin{array}{r} 60 \\ 4 \overline{) 240} \\ \underline{-24} \\ 00 \\ \underline{-00} \\ 0 \end{array}$$

60 miles in 1 hour

⑧ 16.25 for 5 gallons of milk

$$\begin{array}{r} 3.25 \\ 5 \overline{) 16.25} \\ \underline{-15} \\ 12 \\ \underline{-10} \\ 25 \\ \underline{-25} \\ 0 \end{array}$$

unit rate =
cost for 1 gallon
of milk

\$3.25 for 1 gallon
of milk

⑨ \$72.80 for 26 gallons of gas

$$\begin{array}{r} 2.80 \\ 26 \overline{) 72.80} \\ \underline{-52} \\ 208 \\ \underline{-208} \\ 00 \\ \underline{-0} \\ 0 \end{array}$$

unit rate =
cost for 1 gallon
of gas

\$2.80 for 1 gallon
of gas

⑩ \$5.20 for 4 bags of chips

$$\begin{array}{r} 1.30 \\ 4 \overline{) 5.20} \\ \underline{-4} \\ 12 \\ \underline{-12} \\ 00 \\ \underline{-0} \\ 0 \end{array}$$

unit rate =
cost for 1 bag

\$1.30 for 1 bag of chips

⑪

Girls	15	5
Boys	21	?

$21 \div 3 = 7$

7 boys

⑫

Cost	105	21	?	168
Number of tickets	5	1	8	

$$\begin{array}{r} 21 \\ 5 \overline{) 105} \\ \underline{-10} \\ 05 \\ \underline{-5} \\ 0 \end{array}$$

\$168 for 8 tickets

$$\begin{array}{r} 21 \\ \times 8 \\ \hline 168 \end{array}$$

⑬ Correct: $\boxed{3|3|3|3|3}$ 7 total pieces
 Incorrect: $\boxed{3|3}$

Meg got 6 wrong

21 questions $\div 7 = 3$ (each piece = 3 questions)

⑭

miles	335	67	?
time hours	5	1	9

$$\begin{array}{r} 67 \\ 5 \overline{) 335} \\ \underline{-30} \\ 35 \\ \underline{-35} \\ 0 \end{array}$$

603 miles

$$\begin{array}{r} 67 \\ \times 9 \\ \hline 603 \end{array}$$

- ⑮ A: \$6.45 for 3 bags of chips
 B: \$11.50 for 5 bags of chips

2 ways to solve:

Method 1: compare a common amount
 (between 3 & 5 bags → 15 would be common)

A)

Cost	6.45	32.25
# of bags	3	15

Annotations: $\times 5$ above 6.45 and 32.25, $\times 5$ below 3 and 15.

$$\begin{array}{r} 22 \\ 6.45 \\ \times 5 \\ \hline 32.25 \end{array}$$

B)

Cost	11.50	34.50
# of bags	5	15

Annotations: $\times 3$ above 11.50 and 34.50, $\times 3$ below 5 and 15.

$$\begin{array}{r} 1 \\ 11.50 \\ \times 3 \\ \hline 34.50 \end{array}$$

The better buy is Option A because the cost for the same amount of bags of chips is less than Option B.

Method 2: compare the unit rates

A)

	2.15	
3	6.45	\$2.15 for 1 bag

Annotations: -6 below 6.45, 04 below -6 , -3 below 04 , 15 below -3 , -15 below 15 , 0 below -15 .

B)

	2.30	
5	11.50	\$2.30 for 1 bag

Annotations: -10 below 11.50, 15 below -10 , -15 below 15 , 00 below -15 , 0 below 00 .

The better buy is Option A because the unit rate is less than Option B.

⑩ Can pick either method like in #15 to solve (I am going to compare units rates only here)

Dog favorite:

$$\begin{array}{r} 3.75 \\ 6 \overline{) 22.50} \\ \underline{-18} \\ 45 \\ \underline{-42} \\ 30 \\ \underline{-30} \\ 0 \end{array}$$

\$3.75 for 1 pound

Best for Dog

$$\begin{array}{r} 3.80 \\ 5 \overline{) 19.00} \\ \underline{-15} \\ 40 \\ \underline{-40} \\ 00 \\ \underline{-0} \\ 0 \end{array}$$

\$3.80 for 1 pound

Dog Favorite brand is the better buy because there is a lower price per pound than Best for Dog.

⑪ 30% of what number is 24?

Part	30	6	24
Whole	100	20	?

$\frac{30}{100} \xrightarrow{\div 5} \frac{6}{20} \xrightarrow{\times 4} \frac{24}{?}$
 $\frac{24}{?} \xrightarrow{\times 4} \frac{96}{80}$

$$\frac{\text{Part}}{\text{Whole}} = \frac{\%}{100} = \frac{\text{is}}{\text{of}}$$

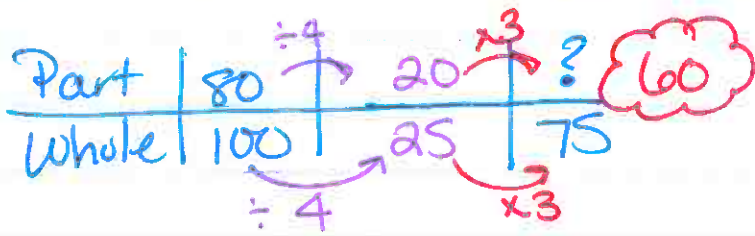
⑫ 25% of 260 is what number?

Part	25	25	?
Whole	100	100	260

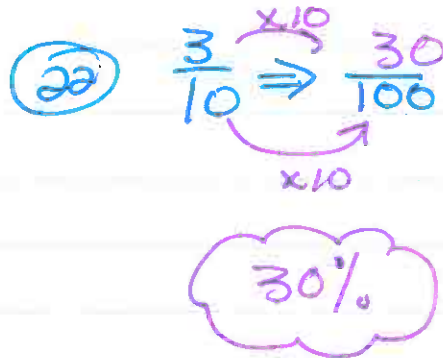
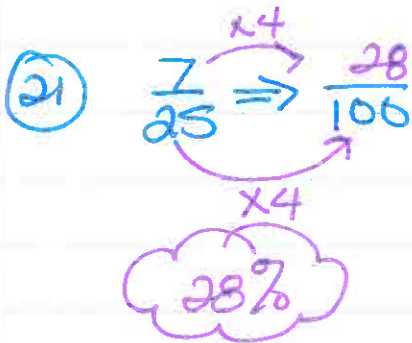
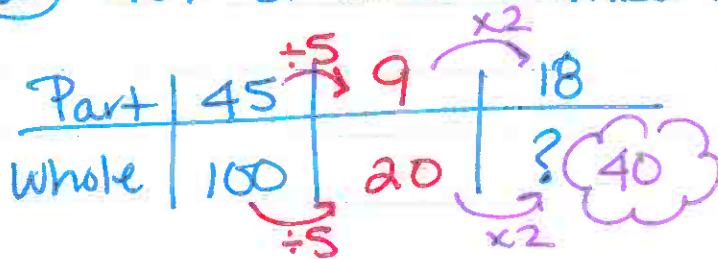
$\frac{25}{100} \xrightarrow{\div 10} \frac{25}{100} \xrightarrow{\times 260} ?$
 $\frac{25}{100} \times 260 = 65$

$$\begin{array}{r} 26 \\ \times 25 \\ \hline 130 \\ +520 \\ \hline 650 \end{array}$$

① 80% of 75 is what number?

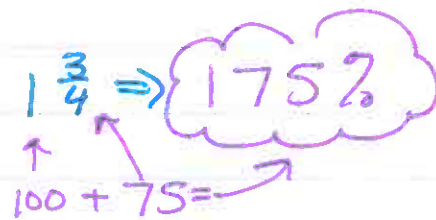


② 45% of what number is 18?



whole numbers represent an amount of hundreds, so this will

be $100 + \frac{3}{4}$ as a percent



(24) $2\frac{4}{5}$
 $\uparrow \quad \uparrow$
 200 + $\frac{4}{5}$ as a percent

$$\frac{4}{5} \xrightarrow{\times 20} \frac{80}{100}$$

$200 + 80 \Rightarrow 280\%$

(25) $47\% \Rightarrow \frac{47}{100}$

(26) $15\% \Rightarrow \frac{15 \div 5}{100 \div 5} = \frac{3}{20}$

(27) $150\% \Rightarrow \frac{150 \div 50}{100 \div 50} = \frac{3}{2} \text{ or } 1\frac{1}{2}$

(28) $68\% \Rightarrow \frac{68 \div 4}{100 \div 4} = \frac{17}{25}$

$$\begin{array}{r} 17 \\ 4 \overline{) 68} \\ \underline{-4} \\ 28 \\ \underline{-28} \\ 0 \end{array}$$

(29)

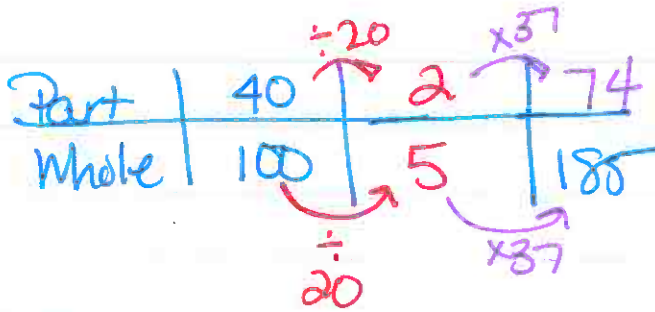
Part	75	?	15
Whole	100	20	

 $\div 5$

$$\begin{array}{r} 15 \\ 5 \overline{) 75} \\ \underline{-5} \\ 25 \\ \underline{-25} \\ 0 \end{array}$$

15 questions correct

(30)



$$\begin{array}{r} 1 \\ 37 \\ \times 2 \\ \hline 74 \end{array}$$

4% dried up \Rightarrow 74

$185 - 74 = 111$ not dried up

$$\begin{array}{r} 37 \\ 5 \overline{) 185} \\ \underline{-15} \\ 35 \\ \underline{-35} \\ 0 \end{array}$$

Mrs. Mawself still has 111 markers