

Name: KEY  
 Chapter 8 Practice Quiz (Sections 1 - 3)  
 Mr. McAusland -6<sup>th</sup> Math  
 May 29, 2013

Solve and Show Work

1) A computer printer prints 70 pages in 2 minutes. How many pages will it print in 10 minutes?

$$\frac{70 \text{ PAGES}}{2 \text{ MIN}} = \frac{\quad}{10 \text{ MIN}}$$

$$2 \overline{) 10} \begin{array}{r} 5 \\ \end{array}$$

$$70 \text{ PAGES} \cdot 5 = \boxed{350 \text{ PAGES}}$$

2) Timmy trains at an indoor track during the winter. He can run 24 laps in 8 minutes. At this rate, how many laps can Timmy run in 20 minutes?

$$\frac{24 \text{ LAPS} \cdot 2.5}{8 \text{ MIN} \cdot 2.5} = \frac{\quad}{20 \text{ MIN}}$$

$$8 \overline{) 20.0} \begin{array}{r} 2.5 \\ 16 \downarrow \\ \hline 40 \end{array}$$

$$24 \text{ LAPS} \cdot 2.5 = \boxed{60 \text{ LAPS}}$$

3) Which is the better buy? A 12 ounce box of Honey Combs for \$3.60 or a 30 ounce box of Honey Combs for \$9.90. (Show why)

BOX A

$$\frac{\$3.60}{12 \text{ oz}} = \text{\$}0.30/\text{oz}$$

$$12 \overline{) 3.60} \begin{array}{r} 0.3 \\ 36 \\ \hline 0 \end{array}$$

BOX B

$$\frac{\$9.90}{30 \text{ oz}} = \text{\$}0.33/\text{oz}$$

$$30 \overline{) 9.90} \begin{array}{r} 0.33 \\ 90 \\ \hline 90 \\ \hline 0 \end{array}$$

THE 12 OUNCE BOX IS A BETTER BUY.

4) Mrs. Covelli is reading stories that her students wrote. She has read 8 stories in 40 minutes.

a) At this rate, how long would it take her to read 1 story?

$$8 \overline{) 40} \begin{array}{r} 5 \\ \end{array}$$

$$\frac{40 \text{ MIN}}{8 \text{ STORIES}} = \boxed{\frac{5 \text{ MIN}}{1 \text{ STORY}}}$$

b) How long will it take her to read all 24 of her students?

$$8 \overline{) 24} \begin{array}{r} 3 \\ \end{array}$$

$$\frac{40 \text{ MIN} \cdot 3}{8 \text{ ST.} \cdot 3} = \frac{\quad}{24 \text{ ST}}$$

$$40 \text{ MIN} \cdot 3 = \boxed{120 \text{ MIN OR } 2 \text{ HRS}}$$

5) Shane's father read a 200 page book in 4 hours.

a) Fill in the rate table

Pages	50	150	200	600
Hours	1	3	4	<del>12</del>

$\frac{200 \text{ P} \div 4}{4 \text{ HR} \div 4} = \frac{\quad}{1 \text{ HR}}$

$\frac{50 \text{ PAGES}}{4 \overline{) 200}}$

$\frac{50 \text{ PAGES} \cdot 3}{1 \text{ HR} \cdot 3} = \frac{\quad}{3 \text{ HR}}$

$50 \cdot 3 = 150 \text{ PAGES}$

$\frac{3}{1 \overline{) 3}}$

~~$\frac{600 \text{ P}}{1 \text{ HR}}$~~

$\frac{50 \text{ P} \cdot 12}{1 \text{ HR} \cdot 12} = \frac{600 \text{ P}}{\quad}$

$\frac{50 \overline{) 600}}{\quad}$

$\begin{array}{r} 12 \\ 50 \overline{) 600} \\ \underline{50} \\ 100 \end{array}$

Write a proportion and then solve the problem

6) Robin rode her bike at an average speed of 8 miles per hour. At this rate, how far would she travel in 5 hours?

$$\frac{8 \text{ mi} \cdot 5}{1 \text{ hr} \cdot 5} = \frac{\quad}{5 \text{ hr}}$$

40 miles

$$\frac{5}{1 \cancel{5}}$$

7) A high-speed copier makes 90 copies per minute. How long will it take to make 360 copies?

$$\frac{90 \text{ cop} \cdot 4}{1 \text{ MIN} \cdot 4} = \frac{360 \text{ cop}}{\quad}$$

$$\begin{array}{r} 4 \\ 90 \overline{) 360} \\ \underline{360} \\ 0 \end{array}$$

4 MIN

8) Tina rode her bike at an average speed of 10 miles per hour. At this rate, how long would it take Tina to ride 25 miles?

$$\frac{10 \text{ mi} \cdot 2.5}{1 \text{ hr} \cdot 2.5} = \frac{25 \text{ mi}}{\quad}$$

$$\begin{array}{r} 2.5 \\ 10 \overline{) 25} \\ \underline{20} \\ 50 \end{array}$$

2.5 or 2½  
HOURS

- 9) Angela earns \$12 per hour babysitting. How long must she work to earn \$132?  
 (Complete the rate table, then write an open proportion and solve the proportion)

dollars	12	132
hours	1	

$$\begin{array}{r} 11 \\ 12 \overline{)132} \\ \underline{12} \\ 12 \\ \underline{12} \\ 0 \end{array}$$

$$\frac{\$12}{1 \text{ hr}} = \frac{\$132}{x}$$

11 hours

Solve for the missing variable (Show the starting equations and steps towards isolating the variable)

10)  $\frac{9}{15} = \frac{24}{x}$

$$9 \cdot x = 15 \cdot 24$$

$$\frac{9x}{9} = \frac{360}{9}$$

$x = 40$

11)  $\frac{10}{12} = \frac{y}{15}$

$$10 \cdot 15 = 12 \cdot y$$

$$\frac{150}{12} = \frac{12y}{12}$$

$12.5 = y$

12)  $\frac{2}{9} = \frac{z}{45}$

$$2 \cdot 45 = 9 \cdot z$$

$$\frac{90}{9} = \frac{9z}{9}$$

$$\boxed{10 = z}$$

13)  $\frac{3}{4} = \frac{a}{56}$

$$4 \cdot a = 3 \cdot 56$$

$$\frac{4a}{4} = \frac{168}{4}$$

$$\boxed{a = 42}$$

14)  $\frac{22}{b} = \frac{4}{10}$

$$22 \cdot 10 = 4 \cdot b$$

$$\frac{220}{4} = \frac{4b}{4}$$

$$\boxed{55 = b}$$