

Name: \_\_\_\_\_

**KEY**

Date: \_\_\_\_\_

**Chapter 4 and 5 Review**

$$1. \quad a) \frac{2}{3} \times \frac{3}{4} = \frac{2}{4} \Rightarrow \boxed{\frac{1}{2}}$$

$$b) \frac{1}{3} \times \frac{4}{5} = \boxed{\frac{4}{15}}$$

$$c) \frac{5}{8} + \frac{1}{4} = \frac{5}{8} + \frac{2}{8} = \boxed{\frac{7}{8}}$$

2.

$$a) \frac{3}{4} \div \frac{1}{8} = \frac{3}{4} \times \frac{8^2}{1} = \boxed{6}$$

$$b) \frac{5}{6} - \frac{2}{3} = \frac{5}{6} - \frac{4}{6} = \boxed{\frac{1}{6}}$$

$$c) 2\frac{1}{2} \div \frac{3}{4} = \frac{5}{2} \times \frac{4^2}{3} = \frac{10}{3} \Rightarrow \boxed{3\frac{1}{3}}$$

$$d) 3\frac{7}{10} - 1\frac{1}{5} = \frac{37}{10} - \frac{6}{5} = \frac{37}{10} - \frac{12}{10} = \frac{25}{10} = \frac{5}{2} = \boxed{2\frac{1}{2}}$$

$$e) \frac{3}{5} \div \frac{2}{3} = \frac{3}{5} \times \frac{3}{2} = \boxed{\frac{9}{10}}$$

$$f) 2\frac{1}{4} - 1\frac{1}{2} = \frac{9}{4} - \frac{3}{2} = \frac{9}{4} - \frac{6}{4} = \boxed{\frac{3}{4}}$$

$$g) \frac{7}{8} \div \frac{1}{6} = \frac{7}{8} \times \frac{6}{1} = \frac{42}{8} = \boxed{\frac{21}{4}}$$

$$h) 8 - 1\frac{3}{4} = \frac{32}{4} - \frac{7}{4} = \frac{25}{4} = \boxed{6\frac{1}{4}}$$

Name: \_\_\_\_\_

Date: \_\_\_\_\_

3. Solve:

a) How many  $\frac{3}{4}$  cup portions are in  $1\frac{1}{2}$  cups of sugar?

$$\begin{aligned}
 &= 1\frac{1}{2} \div \frac{3}{4} \\
 &= \frac{3}{2} \div \frac{3}{4} \\
 &= \frac{\cancel{3}}{2} \times \frac{4^2}{\cancel{3}}
 \end{aligned}
 \quad \Bigg| \quad
 = \boxed{2}$$

b) Sabrina has  $3\frac{1}{3}$  L of ice cream to share equally among herself and her nine friends at her birthday party. How much ice cream will each get? ↳ 10 people

$$\begin{aligned}
 &3\frac{1}{3} \div 10 \\
 &= \frac{10}{3} \div \frac{10}{1} \\
 &= \frac{\cancel{10}}{3} \times \frac{1}{\cancel{10}}
 \end{aligned}
 \quad \Bigg| \quad
 = \boxed{\frac{1}{3}}$$

### Chapter 7 Review:

1. Determine the unit rate. Include the units.

a) It takes three hours to travel 240 km.

$$\frac{240 \text{ km}}{3 \text{ h}} = \boxed{80 \text{ km/hr}}$$

c) Six classes have 168 students.

$$\frac{168 \text{ students}}{6 \text{ classes}} = \boxed{28 \text{ students/class}}$$

b) Ten copies cost \$1.20.

$$\frac{\$1.20}{10 \text{ copies}} = \boxed{\$0.12/\text{copy}}$$

d) The plant grew 108 mm in nine days.

$$\frac{108 \text{ mm}}{9 \text{ days}} = \boxed{12 \text{ mm/day}}$$

2. Solve:

$$\begin{aligned}
 \text{a) } \frac{30}{40} &= \frac{s}{120} \\
 \times 3 & \\
 s &= 30 \times 3 \\
 s &= \boxed{90}
 \end{aligned}$$

$$\begin{aligned}
 \text{b) } \frac{99}{44} &= \frac{9}{r} \\
 \div 11 & \\
 r &= 44 \div 11 \\
 r &= \boxed{4}
 \end{aligned}$$

$$\begin{aligned}
 \text{c) } \frac{64}{8} &= \frac{y}{2} \\
 \div 4 & \\
 y &= 64 \div 4 \\
 y &= \boxed{16}
 \end{aligned}$$

$$\begin{aligned}
 \text{d) } \frac{5}{16} &= \frac{40}{x} \\
 \times 8 & \\
 x &= 16 \times 8 \\
 x &= \boxed{128}
 \end{aligned}$$

Name: \_\_\_\_\_

Date: \_\_\_\_\_

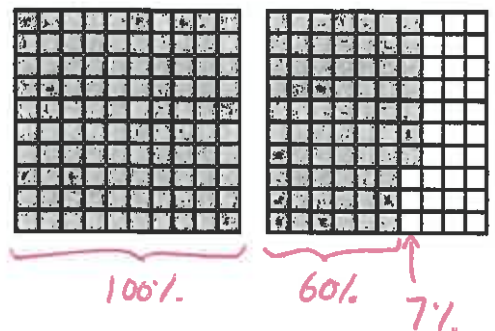
Item	a) Proportion	b) Value	c) Statement
Example: 5 T-shirts cost \$62.50. How much will 15 T-shirts cost?	$\frac{5}{62.5} = \frac{15}{x}$	$x = 187.5$	Fifteen T-shirts will cost \$187.50.
4. The ratio of boys to girls at a music concert was 3 to 5. If there were 140 girls at the concert, how many boys were there?	$\frac{3}{5} = \frac{x}{140}$ <i>(Handwritten: <math>\times 28</math> above and below)</i>	$x = 3 \times 28$ $x = 84$	There were 84 boys.
5. Three cups of flour are needed to make 48 pecan cookies. How many cookies will 5 cups of flour make?	$\frac{3}{48} = \frac{5}{x}$ <i>(Handwritten: <math>\times 16</math> above and below)</i>	$x = 5 \times 16$ $x = 80$	80 cookies will make 5 cups of flour.

**Chapter 8 Review**

- What is 78.2% as a decimal?  
 $78.2\%$   
 $= 78.2 \div 100$   
 $= 0.782$
- What is  $\frac{3}{16}$  as a percent?  
 $= 3 \div 16$   
 $= 0.1875$   
 $= 18.75\%$
- What is 12.5% as a fraction?  
 $12.5\%$   
 $= \frac{12.5}{100}$   
 $= \frac{25}{200}$   
 $= \frac{1}{8}$
- What is 3.194 as a percent?  
 $= 3.194 \times 100$   
 $= 319.4\%$

- One completely shaded grid represents 100%. What percent does the diagram represent?

$167\%$



Name: \_\_\_\_\_

Date: \_\_\_\_\_

6. Convert each of the following:

a) 48% to a decimal and a fraction in lowest terms

$$\begin{aligned}
 &48\% \\
 &= 48 \div 100 \\
 &= \boxed{0.48}
 \end{aligned}
 \quad \Bigg| \quad
 \begin{aligned}
 &= \frac{48}{100} \\
 &= \frac{24}{50} \\
 &= \boxed{\frac{12}{25}}
 \end{aligned}$$

b) 3.375 to a percent and a fraction in lowest terms

c)  $\frac{4}{5}$  to a decimal and a percent

$$= \boxed{0.80} \Rightarrow \boxed{80\%}$$

$$\begin{aligned}
 &3.375 \\
 &= \boxed{33.75\%} \\
 &= 3 \frac{375}{1000} \\
 &= \boxed{3 \frac{1}{8}}
 \end{aligned}$$

7. Determine the following. Write your answer to the nearest tenth.

a) 94% of 63 =  $0.94 \times 63$   
 $= 59.22$   
 $= \boxed{59.2}$

b) 146.3% of 300 =  $1.463 \times 300$   
 $= \boxed{438.9}$

c) 7 out of 12 as a percent  
 $= 7 \div 12$   
 $= 0.5833\dots$   
 $= \boxed{58.3\%}$

d) 18 out of 80 as a percent  
 $= 18 \div 80$   
 $= 0.225$   
 $= \boxed{22.5\%}$

e) 60% of 78  
 $= 0.60 \times 78$   
 $= \boxed{46.8}$

f) 0.05% of 1000  
 $= 0.0005 \times 1000$   
 $= \boxed{0.5}$

8. During this basketball season Trey took 250 shots and made 72 baskets. What was his shooting percentage?

$$\begin{aligned}
 &\frac{72}{250} \\
 &= 0.288 \\
 &= \boxed{29\%}
 \end{aligned}$$

9. A bus company offers a 15% discount on bus tickets one day and then an additional 10% off the sale price the next day. Lily wants to buy a bus ticket that has a regular price of \$175. What will she pay for it after the discounts?

$$\begin{aligned}
 &10\% \text{ off of } 15\% \text{ off of } \$175 \\
 &= 90\% \times 85\% \times \$175 \\
 &= 0.90 \times 0.85 \times \$175 \\
 &= \$133.875 \\
 &= \boxed{\$133.88}
 \end{aligned}$$