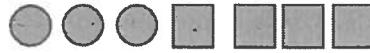


Key

Math 8: Ratios, Rates, Proportional Reasoning Final Exam Review

• Introduction

a. What is the ratio of circles to squares?



3:4; squares; total shapes

What does 4:7 represent?

b. Are the following ratios equivalent?

$\frac{4}{6} = \frac{16}{24}$ Yes $\frac{12}{22} = \frac{108}{242}$ No.

• Two Term and Three Term Ratios

a. Write each ratio in lowest terms using ratio notation and fraction notation.

\$8 compared to \$32 8:32 1:4 $\frac{1}{4}$

A bag holds 48 red chips and 12 black chips. Compare black to total chips. $12:60 \Rightarrow 1:5 \frac{1}{5}$

b. Identify the missing number required to make equivalent fractions.

$\frac{2}{4} = \frac{?}{32}$ $\frac{16}{12} = \frac{9}{36}$ 3

c. Use the chart to answer the following.

Coin	Heads	Tails
Dime	36	24
Nickel	4	2
Loonie	48	32

Which coins have equivalent head to tails ratios? Show the ratio of tails to total tosses as a fraction, decimal and percent.

$\frac{29}{73}$ 0.397260274 39.7260274%

• Rates

a. Determine the unit rate to the nearest hundredth if a car drives 800 km in 6 hours. $133.\bar{3} \text{ km/h}$

b. Use the table to answer the following.

Candy	Mass	Price
A	1200 g	\$7.00
B	2000 g	\$9.50
C	2800 g	\$11.80

What is the unit price per 100g for each package? Which package is the best buy? Why? C because it has the lowest cost per 100g.

$\frac{\$0.58}{100g}$
 $\frac{\$0.48}{100}$
 $\frac{\$0.42}{100g}$

c. Car A drove 1200 km in 13 h. Car B drove 1800 km in 19 h. Which car is faster? Round to the nearest tenth. 92.3 km/h 94.7 km/h \hookrightarrow Car B by 2.4 km/h .

d. Use the chart to answer the following.

Can	US	Aus	Euro
1	0.9765	1.3537	0.6262

What is the value of \$600 Ca in Euro? \$375 Ca is how many US? \$450 Ca is how many Aus?

$\$375.72$

$\$209.17$

$\$366.19$

• Proportional Reasoning

a. You are paid \$80 for 12 h work how much would you get for 6? \$40

b. Find the missing value $\frac{240 \text{ km}}{12} = \frac{x}{24}$ 480 km

c. Set up a proportion if 40 seeds have a mass of 62 g and 120 seeds have a mass of 204 g.

d. 6 kg of fish costs \$56.40. How much will 14 kg cost?

$\frac{40 \text{ seeds}}{62g} = \frac{120 \text{ seeds}}{204g}$

\hookrightarrow \$131.60

* Proportions are not equal.

- e. A machine cuts logs into four pieces in 16s. If it continues cutting at a constant speed how long will it take to cut 400 pieces? $1600s = 26.\bar{6} \text{ min} = 0.\bar{4} \text{ h}$.

Questions to Review

Get Ready Chapter 2

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Rates, Ratios and Proportional Reasoning Assignment 1

Rates, Ratios and Proportional Reasoning Quiz

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Proportional Reasoning Assignment (2.3)

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Rates, Ratios and Proportional Reasoning Test