

Grade 8 Math – Number **Ratios, Rates and Unit Conversions Practice Test**

Name: _____ Class: _____

1. The following is a picture of all the tiles of a Scrabble game. You are to show the following Ratios:



a) A's to B's

b) A's to All tiles

c) All possible vowels to All tiles

2. Javier loves Lays STAX. He sees online that both Dollarama and Walmart

DOLLARAMA

\$29.75

- Original flavoured potato chips
- Zero trans fat
- 155g
- A case contains 17 packs

WALMART

Lay's Stax Original Potato Chips

[Lay's](#)

163 g

★★★★☆ (3)

\$2.27



Which is the better deal? (compare \$/100g for each)

3. Mahmood goes for a long walk. If his app shows that he traveled 13.75 km in 2.5 hours. What is his speed in km/h?

4. Bihn went for a car ride. She and her mom drive West for 2 hours at 60 km/h and then got out and biked South for 2.5 hour going 20 km/h. Using the Pythagorean formula ($A^2 + B^2 = C^2$), find the distance from the start to the finish point to the nearest kilometer.

5. Use these to find the number of units after conversion. Round to two decimal places. (3 each)

Units	To units	Linear Conversion factor	Square Conversion Factor	Cubic Conversion Factor
Centimetres	Inches	2.54 cm/in	6.4516 cm ² /in ²	16.3871 cm ³ /in ³
Metre	Yard	0.9144 m/yd	0.8361 m ² /yd ²	0.7646 m ³ /yd ³
Inches	Feet	12 in/ft	144 in ² /ft ²	1728 in ³ /ft ³
Feet	Yard	3 ft/yd	9 ft ² /yd ²	27 ft ³ /yd ³

a) 29.2608 m is _____ yards

b) 108 inches is _____ feet

c) 83.61 m² is _____ yd²

d) 99 ft² is _____ yd²

e) 409.6775 cm³ is _____ in³

f) 45.876 m³ is _____ yd³

g) 1.44676 ft³ is _____ in³

6. A farm has both ducks and geese. There are 68 ducks and 102 geese. If Vladimir down the road has 24 geese and wants to have the same ratio of ducks to geese, how many ducks should he buy? If the cost is \$4.85/duck, how much will this cost Vladimir?

7. A map shows a scale of 3cm : 12km. How far would 32.5cm on the map represent in actual distance? (Hint: This is the distance Bhin drove in Question 4.)

Answers:

1. a)

b)

c)

2.

3.

4.

5. a)

b)

c)

d)

e)

f)

6.

7.