UNIT TEST on TOMORROW!

Review - Unit Pricing & Currency Exchange.pdf

Chapter 1 Unit Pricing and Currency Exchange ... detailed solutions

Review Questions...

4. The standard sizes for photographs are 4″ × 6″, 5″ × 7″, and 8″ × 10″. Can you use a photocopier to enlarge a 4″ × 6″ photo to one of the other standard sizes? Explain. If you reduce an 8″ × 10″ photograph, what sizes could you make?

$$\boxed{4 \times 5}$$

$$4 \times 6 \; \colon$$

$$4.\overline{6} \times 7$$

$$6.\overline{6} \times 10$$

$$\boxed{NO}$$

$$\frac{4^{(7)}}{6} = \frac{x^{(7)}}{7}$$

$$4.\overline{6} = x$$

$$\frac{4^{(10)}}{6} = \frac{x^{(10)}}{10}$$

$$6.\overline{6} = x$$

7. A recipe for calls for $2\frac{1}{2}$ cups of flour to $\frac{1}{2}$ cup of sugar.

   a) How many cups of flour would you use with 1 cup of sugar?

   b) This recipe makes 12 scones but you only want 8. How much flour and sugar do you use?

a) $\dfrac{flour}{sugar} \Rightarrow$ $\dfrac{x}{1} = \dfrac{2.5}{0.5}$

$$\boxed{x = 5 \text{ cups}}$$

b) $\dfrac{8}{12} = \dfrac{2}{3}$

flour $\Rightarrow \dfrac{2}{3}(2.5) = 1\frac{2}{3}$

sugar $\Rightarrow \dfrac{2}{3}(0.5) = \dfrac{1}{3}$ cup

12. You have decided to buy a new car and must choose between a regular model and a hybrid model. The hybrid model uses less fuel since it uses an electric motor to power the car when it is possible.

Model	Price including taxes and shipping	Average fuel economy (L/100 km)
Regular model	$24 456.00	12.4
Hybrid model	$25 840.00	10.8

a) How many litres of fuel will be required to drive each vehicle 24 000 km?
b) Fuel costs $1.03/litre. How many kilometres would you need to drive to save enough money in fuel to pay for the extra cost to buy the hybrid?
c) Why might you choose to purchase the hybrid even if you planned to sell the car in 2 years?

a) $24000 \text{ km} \times \dfrac{12.4 L}{100 \text{ km}} = 2976 L$

Reg

Hybrid $24000 \times \dfrac{10.8 L}{100 \text{ km}} = 2592 L$

b)

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25840-24456        1384
12.4-10.8           1.6
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← Difference in cost
← Difference in fuel consumption

$\$1384 \div \dfrac{\$1.03}{1L} \Rightarrow \$1384 \times \dfrac{1L}{\$1.03} = 1344 L$ **TOTAL**

$1344 L \div \dfrac{1.6 L}{100 \text{ km}} \Rightarrow 1344 L \times \dfrac{100 \text{ km}}{1.6 L}$

$= \boxed{83980.6 \text{ km}}$

Attachments

Chapter 1 Unit Pricing and Currency Exchange - Practice Your Skills.pdf

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