

***Grade 10  
Essential Math***

***Week 5 Quiz Debrief***

22-12-08

**MrF**

**GRADE 10 ESSENTIAL  
QUIZ WEEK 5 - 221208**

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

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

Weekly quiz.

→ How is Your cheat sheet looking? 5% of course mark!

**Closed book.** Use your cheat sheet (use mine for now if necessary)

**Conversion Tables.** Always allowed the conversion tables

**Geometric Formulae.** Always allowed geometric formulae sheet

**Round** all decimal answers to the nearest **0.01** unless otherwise indicated

Each individual question is worth two marks → 'Standard'

**Show work.** **Always show work** For you, for teacher. Pretend teaching your 14 year old nephew. **zero work, zero mark!**

**Marking.** Each individual question is worth 2 marks unless otherwise indicated.

1. Solve for x:

a.  $\frac{7}{12} = \frac{x}{20}$

b.  $\frac{8}{9} = \frac{30}{x}$

1. Solve for x:

a.  $\frac{7}{12} = \frac{x}{20}$

Cross multiply  
Lazy algebra

$$\frac{7}{12} = \frac{x}{20}$$

$$\frac{7 \cdot 20}{12} = x$$

$$x = \frac{140}{12} = 11.6666\dots$$

$$= 11.67$$

→ rounded properly

b.  $\frac{8}{9} = \frac{30}{x}$

extra step if  
x in bottom

$$\frac{8}{9} = \frac{30}{x}$$

$$8 \cdot x = 9 \cdot 30$$

$$x = \frac{270}{8} = 33.75$$

Check!

$$\frac{8}{9} = 0.888888\dots$$

$$\frac{30}{33.75} = 0.888888$$

$$\frac{8}{9} = 0.8888888889$$

$$\frac{30}{33.75} = 0.8888888889$$

$$\frac{30}{33.75} = \frac{8}{9}$$

A good calculator  
helps!

2. If 7 bananas cost \$10.00, determine how much 15 bananas will cost.  
\$x

$$\frac{\$10}{7 \text{ bananas}} = \frac{\$x}{15 \text{ bananas}}$$

You can see  $x$  is a bit more than 20?

$$\frac{150}{7} = \frac{10 \cdot 15}{7} = x$$

$$x = 21.42857\dots$$

$$x = \$21.43 \quad \checkmark \text{ checks!}$$

rounded properly!

Check

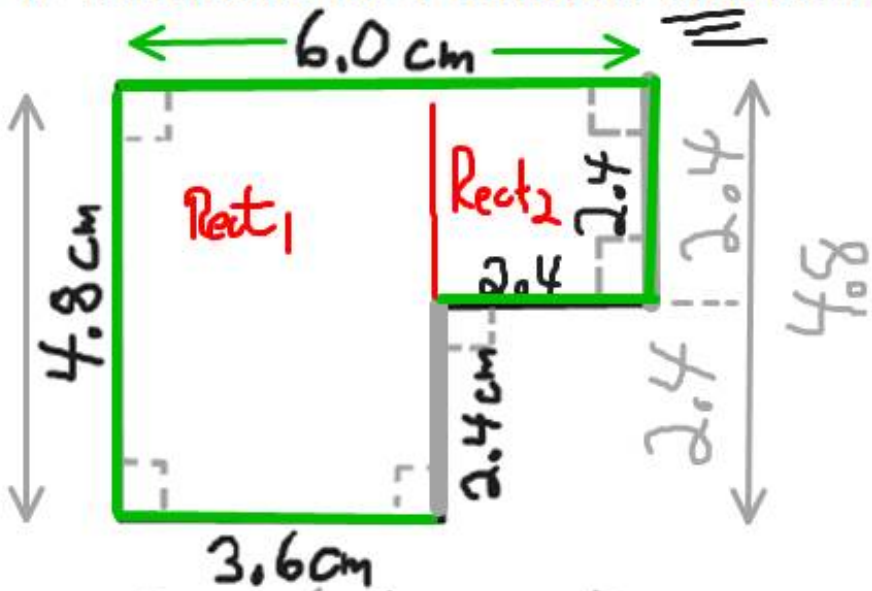
uuuuuuuuuu  
oooooooooo

$$10/7 = 1.4286\dots$$

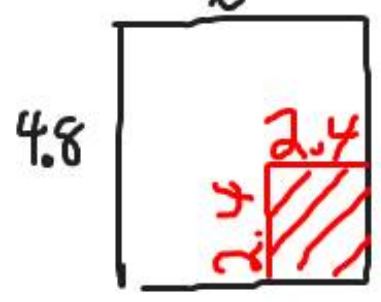
$$21.43/15 = 1.4287\dots$$



4. Determine the Perimeter and the Area of the rectilinear figure:



(OR) b) Whole rectangle subtract the cut out corner!



$$6 \cdot 4.8 = 28.8$$

$$- 2.4 \cdot 2.4 = \underline{5.76}$$

$$= 23.04 \text{ cm}^2$$

a) Perimeter: 21.6 cm  
 b. Area: \_\_\_\_\_

a)  $P = 6.0 + 2.4 + 2.4 + 2.4 + 3.6 + 4.8$   
 $P = \underline{21.6 \text{ cm}}$

b) Total Area = Rect<sub>1</sub> + Rect<sub>2</sub>  
 $3.6 \text{ cm} \cdot 4.8 \text{ cm} + 2.4 \text{ cm} \cdot 2.4 \text{ cm}$   
 $= 17.28 \text{ cm}^2 + 5.76 \text{ cm}^2$   
 $= \underline{23.04 \text{ cm}^2}$

5. **Problem Solve.** Teacher sends a student to the store with **\$50** to buy **20 Donuts**. The donuts must either be Chocolate or Maple. Chocolate donuts cost \$2.00 each, maple donuts cost \$3.00 each. If the student must spend all \$50, determine how many of each donut are bought.

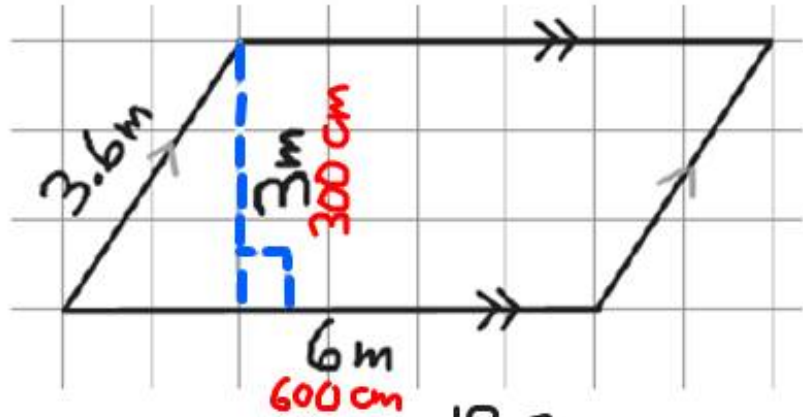
Classic  
Guess and check!!

# of Choc	# of Maple	Total Donuts	Total Cost
5?	$20-5$ 15	20 ✓	$5 \cdot \$2 + 15 \cdot \$3$ $= \$55$ ✗ <b>BZZT WRONG!</b>
<b>Guess again!</b> ✗ 8?	✗ $20-8$ 12	20 ✓	$8 \cdot \$2 + 12 \cdot \$3$ $= \$52$ <b>BZZT! WRONG but close!!</b>
10? ✓	10? ✓ <b>Yes!</b>	<b>20 ✓</b>	$10 \cdot \$2 + 10 \cdot \$3$ $=$ <b>\$50</b>

**The student buys 10 of each donut!**

BONUS QUESTION (1 extra mark each if you need them)

Determine the Area and the Perimeter of the Parallelogram:



a) Perimeter (P) =  $2 \cdot 6m + 2 \cdot 3.6m$   
 $= 12m + 7.2m = 19.2m$

a. Perimeter: 19.2 m around the outside

b. Area: 18 m<sup>2</sup>

c. Area: 180,000 cm<sup>2</sup>

$$18 \cancel{m^2} \cdot \frac{(100 \cancel{cm})^2}{(1 \cancel{m})^2}$$

$$= 180,000 \text{ cm}^2$$

b)  $A = b \cdot h = 6m \cdot 3m = 18m^2$

lol you cud hv just counted the squares in the grid!

