42

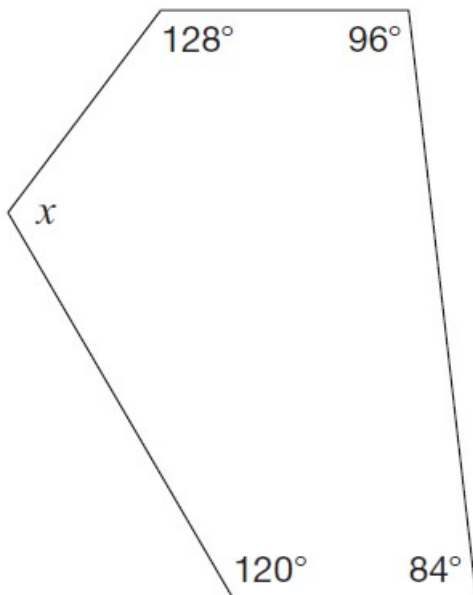| KNOW | / 15 | APP | / 12 | INQ | / 6 | COMM | / 9 |

MFM1P – UNIT 2 TEST

PART ONE - MULTIPLE CHOICE – CIRCLE THE CORRECT ANSWER. (*K – 2 marks each*)

1) Billy has 3 apples and 4 oranges.

Which of the following has a ratio of apples to oranges equivalent to Billy's?

   a   3 apples and 8 oranges

   b   4 apples and 3 oranges

   c   8 apples and 6 oranges

   d   9 apples and 12 oranges

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2) What is the value of x in the diagram below?

   a   60°

   b   68°

   c   112°

   d   128°

3) The design for a rectangular garden has a length-to-width ratio of 7:5.

Which of the following could be used to determine the width of the garden if the length is 6.5 m?

a $\quad \frac{5}{7} = \frac{6.5}{x}$

b $\quad \frac{7}{5} = \frac{x}{6.5}$

c $\quad \frac{6.5}{7} = \frac{5}{x}$

d $\quad \frac{6.5}{x} = \frac{7}{5}$

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4)

The cost of granola bars at two different stores is shown below.

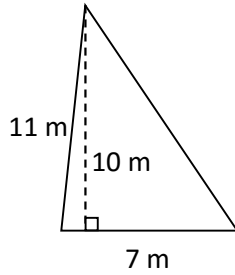| Food-O-Rama	Groceryland
Box of 12 granola bars $7.44	Each box has 5 granola bars 2 boxes for $6.00

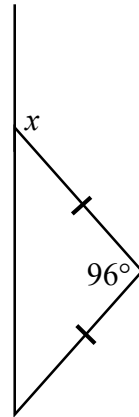What is the difference in the cost per granola bar at these two stores?

a   2¢

b   6¢

c   58¢

d   62¢

PART TWO – FULL SOLUTION – SHOW ALL WORK LEADING TO YOUR FINAL ANSWER.

5) Determine the area of the following triangle. (*K – 2marks*)

11 m, 10 m, 7 m

6) Determine the value of the angle x in the diagram on the right. (*K – 3 marks*)

x

$96°$

7) Express each of the following in simplest form. (*K – 2 marks*)
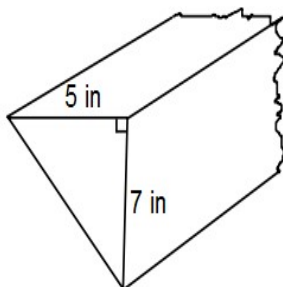   a) $24:18$ b) $600:250$

8)   Solve for the unknown value. (*A – 2 marks*)
   a) $\dfrac{x}{42} = \dfrac{5}{14}$ b) $\dfrac{25}{4} = \dfrac{733}{k}$

9) A section of a water trough is shown. The trough is 360 inches long. Determine how much water the trough can hold (**volume**).   (*A – 2 marks*)

5 in

7 in

10) Calculate the unit rate for each of the following. Remember to include **units** with your final
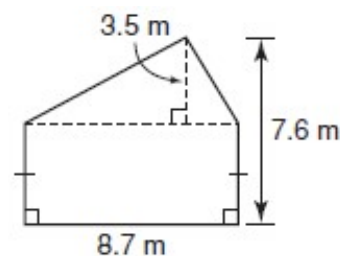answer. (*A – 4 marks*)
   a) A car drives 500 km in 16 hours.

   b) A bean plant grows 38 cm in 12 days.

11) Grass seed sells for $22 for every 5 kg. (*A – 4 marks*)
   a) How much will it cost to buy 57 kg?

   b) How much grass seed can be purchased for $154?

12) Determine the area of the figure shown on the right. (*I – 3 marks*)

3.5 m

7.6 m

8.7 m

13) Gina is buying 24 oranges. Two stores offer the following deals:

   Store A: 12 oranges for $6.48

   Store B: 5 oranges for $2.65

   Gina can buy oranges individually.

   How much will Gina save if she buys 24 oranges at Store B?

   Show your work.

   (*I – 3 marks*)

14) Sidney Crosby scores 10 goals in the first 12 games of the season. At this pace, how many will he score in an 82 game season?   *(C – 3 marks)*
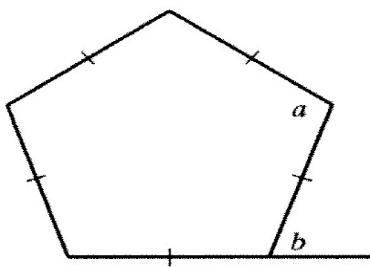
15) Pancake mix is sold in three different sizes. **CIRCLE THE BEST BUY. Show the work that led to your choice!**   *(C – 3 marks)*

   $ 2.49 for 500 g   **$3.99 for 750 g**   **$11.99 for 1300 g**

16) Determine the values of angles a and b in the following diagram. *(C – 3 marks)*

$a =$ _____

$b =$ _____