

TAURANGA GIRLS COLLEGE YEAR 10 HOMEWORK SHEET Series D Sheet 5

TGC Values: Respect, Participation, Pride

Name: _____

Due Date: _____



KEY SKILLS:

1. Write the number four million and sixty thousand

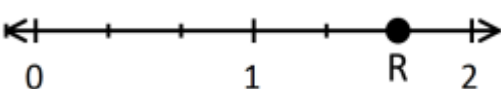
2. Round 289,600 to the nearest *hundred thousand*

3. Write *thirteen and seven hundredths* as a decimal

4. Write $\frac{47}{6}$ as an mixed number

5. Simplify the fraction $\frac{35}{45}$

6. Insert < or > to make a true statement: 1.3 $\frac{17}{10}$

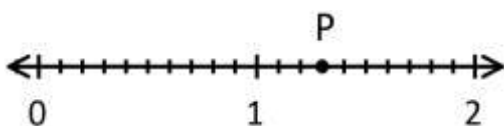
7. 

Write the point R as a

a) mixed number

b) Improper fraction

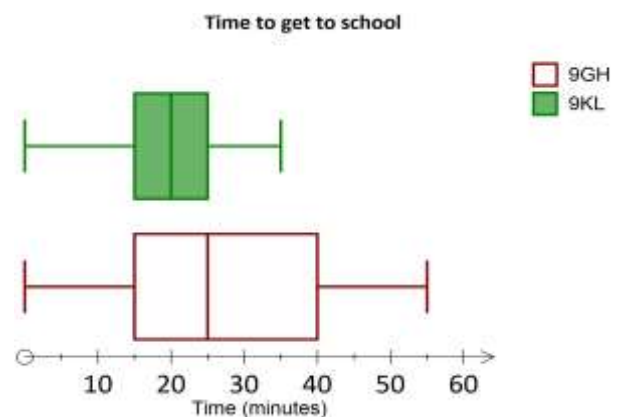
8. Write the point P as a *decimal*



9. Calculate 95% of \$640

10. Calculate \$520 + GST

11.



The box plot above records the time, in minutes, students in 9GH and 9KL spent on homework last night. The times were recorded to the nearest five minutes.

- What was the *median* time for 9GH?
- What was the *inter quartile range* time for 9GH?
- What percentage of students in 9KL spent less than 15 minutes on homework last night?
- Which class, *on average*, spent more time on homework?

Key Skills Total: _____ / 15

REVIEW and CURRENT WORK (CL 4 – 5): Measurement

A. Number and Algebra Review

- $\frac{3}{4} - \frac{2}{3} =$
- If $a = 6$ and $c = -4$, find the value of $3ac$
- $5p + 4q - p - 2q =$
- $\frac{15n}{20n} =$
- Expand $3p(5p - 6) =$
- Factorise $8p + 32$
 $= 8(\dots\dots\dots + \dots\dots\dots)$

B. Measurement Review

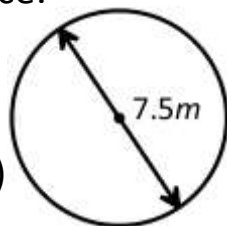
- $8.2m = \dots\dots\dots mm$
- $5700g = \dots\dots\dots kg$
- $6.7L = \dots\dots\dots mL$
- $3.5 \text{ tonnes} = \dots\dots\dots kg$
- Find the circumference:

$$C = \pi \times D$$

$$=$$

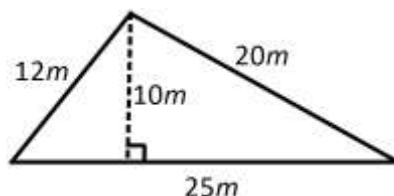
$$=$$

(1dp)



- Find the area of these shapes:

a)

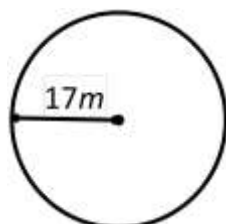


b) $A = \pi \times R^2$

$$=$$

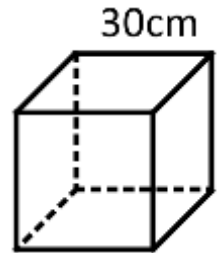
$$=$$

(1dp)

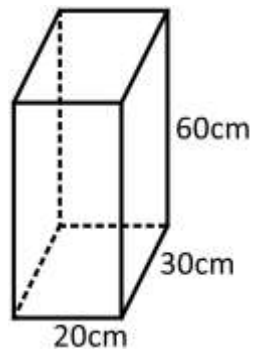


- Find the volume of these shapes.

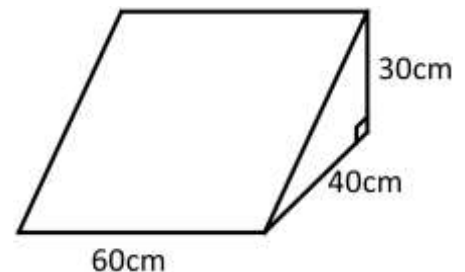
a) A cube of side 30cm



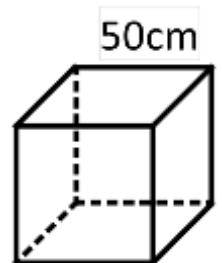
b)



c)



- Find the surface area of a cube of side length 50cm



Current Work CL4-5: ____ / 17

REVIEW and CURRENT WORK (CL 5 – 6): Measurement

A. Number and Algebra Review

- Discount \$56.20 by 15%
- Write 3,450,000 in standard form.
- $8n^2 - 18n - 8n - 2n^2 =$
- $\frac{28a^6c^8}{40ac^2} =$
- Expand and simplify $(x - 7)^2$

=

=

Factorise: $80mn^2 + 16nm$

=

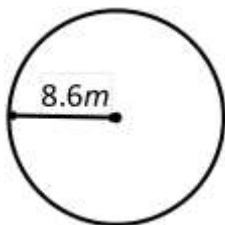
B. Measurement Review

- 2640 m = km
- 0.36 kJ = J
- $15600m^2 =$ ha
- Find the circumference

$$C = \pi \times D$$

=

=

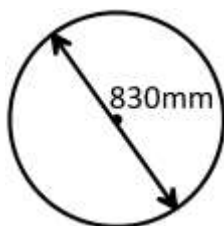


- Find the area

$$A = \pi \times R^2$$

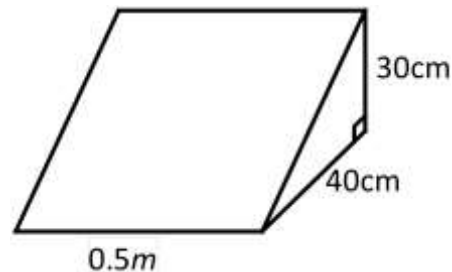
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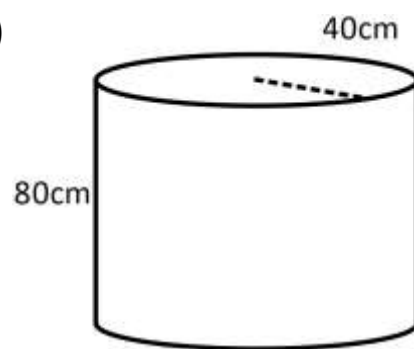


- C. Volume:** Find the volume of these shapes. Write the unit for each.

1.



2. (Radius 40cm)



- Calculate the capacity of the triangular prism in Q1 in litres
- Calculate the capacity of the cylinder in Q2 in litres.

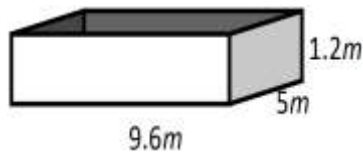
Current Work CL5-6: ____ /15

APPLICATIONS and TASKS

For each of these tasks you **must show your working**. Set out your solution in a clear and ordered manner. **Read the question carefully.**

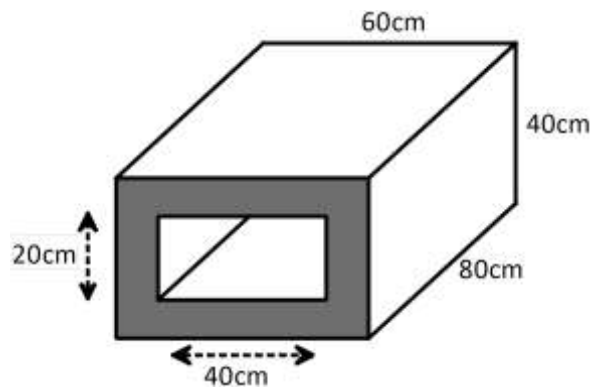
Task One (2 marks): The swimming pool

- a) Calculate the volume of the swimming pool.
b) What is the total area of the inside walls and floor?



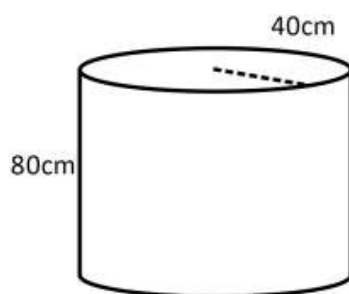
Task Two (2 marks):

Calculate the volume of this shape.



Task Three (2 marks)

Calculate the surface area of this cylinder.
The radius is 40cm and the height is 80cm.



Applications Total: _____ / 6

Overall Results:

KS	CL4-5	CL5-6	APP	Parent Signature:
13	30	22	6	