TAURANGA GIRLS COLLEGE
YEAR 10 HOMEWORK SHEET
Series D Sheet 2
TGC Values: Respect, Participation, Pride

Name: _____

Due Date: _____

KEY SKILLS:

1. Write the number three million five hundred thousand

_____

2. Round 671,500 to the nearest *ten thousand*

_____

3. Write *six and three tenths* as a *decimal*

_____

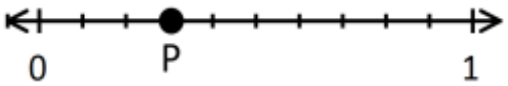
4. Write 3¼ as an improper fraction.

5. Simplify the fraction $\frac{40}{75}$

6. Write the fractions $\frac{3}{7}$ $\frac{3}{5}$ $\frac{3}{11}$ in order from largest to smallest.

7. Write the point R as a *fraction*

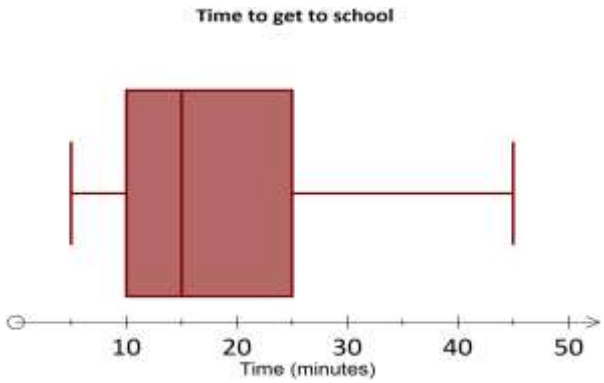
8. Write the point P as a *decimal*



9. What direction is opposite southwest?

10. What is the *sum* of the angles in a triangle?

11.



The box plot above records how long students in 10KLM took to get to school. The times were recorded to the nearest five minutes.

a) What was the *median* time?

b) What was the *lower quartile* time?

c) What was the *inter quartile range* of times?

d) 25% of the travel times were above what time?

e) If there were 28 students in 10KLM, how many took less than 10 minutes to get to school?

f) Is the distribution (shape) of the times *symmetrical* or *skew*?

Key Skills Total: _____ / 16

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

A. Number and Algebra Review

1. Calculate 65% of $820 =

2. $680 + GST =

3. Divide $350 in the ratio 2:5

Simplify:

1. 6m + 4k – 2m – k =

2. 5m x 7m =

3. $\frac{70m}{7m}$ =

4. Expand 5(2m + 9) =

5. Factorise 21m + 28

= 7(……. + ...)

B. Metric conversions

Complete these conversions:

1. 1 t = ... kg

2. 1 ha = ... m^2

3. If 1m = 1000mm, then:

3m = ... mm

16m = ... mm

0.7m = ... mm

..... m = 1800mm

..... m = 570mm

..... m = 40mm

Complete these metric conversions:

1. 8.2m = ... mm

2. 3.72m = ... cm

3. 2.1km = ... m

4. 6300 mm = ... m

5. 85cm = ... m

6. 35.2cm = ...mm

C. Perimeter

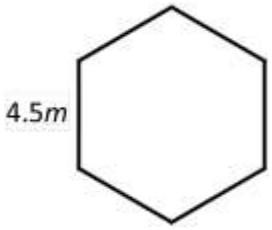
Calculate the perimeter of each of these shapes:

1. A square of side length 5cm

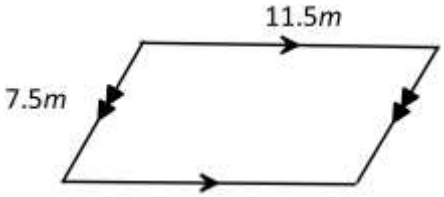
2. A rectangle with width 4m and length 7m

3. A triangle with sides 3m, 4m and 4.5m

4. A regular hexagon. Side length 4.5m.



5.



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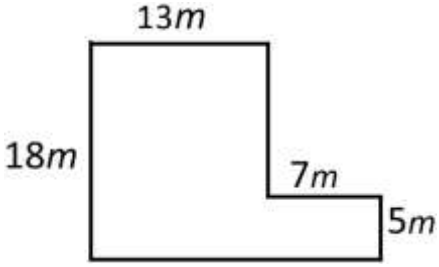


Current Work CL4-5: ___ / 18

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

A. Number and Algebra Review

1. An item costing $5.60 is increased in price by 30% What is the new cost?

2. An item is reduced from $185 to $165 in a sale. What percentage discount is this?

3. Two stroke petrol mixes oil to petrol in the ratio 1:25. If you fill a container with 5L of petrol, how much oil will you need to add?

Simplify:

1. $60p - 7q - 35p - 18q =$

2. $(2a^7)^4 =$

3. $5(7m + 5) - 3(5m - 4)$

=

=

4. $(x - 4)(x - 3)$

=

=

Factorise:

1. $36x^2 + 20xy =$

2. $5x^5 - 20xy =$

B. Metric conversions

Complete these metric conversions

1. 8.12 kg = ... g

2. 4.78 L = ... mL

3. 2.1 kJ = ... J

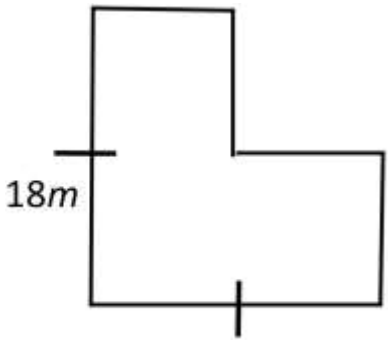
4. 565 mg = ... g

C. Perimeter

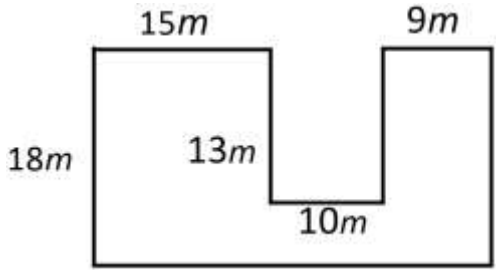
Calculate the perimeter of each of these shapes:

1. A regular octagon with side length 16.8cm

2.



3.



Current Work CL5-6: ___ ***/16***

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 gift box shown here is a cube with side length 20cm. The bow uses 70cm of ribbon. If the ribbon costs $5.40 a metre, what is the total cost of the ribbon?

Task Two (2 marks)

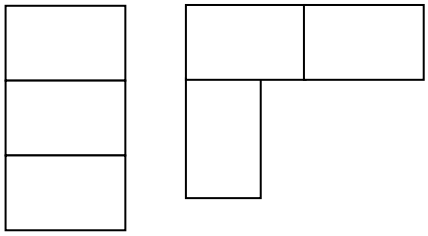
A rectangular swimming pool measures 8.2m by 5.8m. The pool has to be fenced. The fence surrounds the pool and is a distance of 4m from the sides of the pool. If fencing costs $25 a metre, how much will the fence cost?

Task Three (2 marks)

A table measures 800mm by 1.2m. Three tables are placed together. Two arrangements are shown here.

If a person requires 40cm of table width, what arrangement of the three tables will seat the most people?

How many people will your arrangement seat?



Applications Total: _____ / 6

Overall Results:

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