

TAURANGA GIRLS COLLEGE

YEAR 10 HOMEWORK SHEET

Series E Sheet 2

TGC Values: Respect, Participation, Pride

Name: _____

Due Date: _____



KEY SKILLS:

1. Write the number three and two hundredths as a decimal

2. Round 84.37 to the nearest *tenth*

3. Write *twelve thousandths* a decimal

4. Complete this equivalent fraction

$$\frac{5}{6} = \frac{\quad}{36}$$

5. Round $\sqrt{20.5}$ to 1dp.

6. What is the ratio of vowels to consonants in the word DELICIOUS

7. Divide \$25 in the ratio 2:3

8. What is the metric unit for power?

9. 8.4m = _____ mm

10. What is the probability of rolling a one on a die?

11. $v = 3(a - 6c)$

Find the value of v if $a = 7$ and $c = -4$

12. Write the rule linking x and y for this table:

x	1	2	3	4
y	5	8	11	14

$y = \dots\dots\dots$

13. Simplify each of these expressions:

a) $6a + 8c + 5a + 7c =$

b) $4a \times 5c =$

c) $c \times c \times c \times c \times c =$

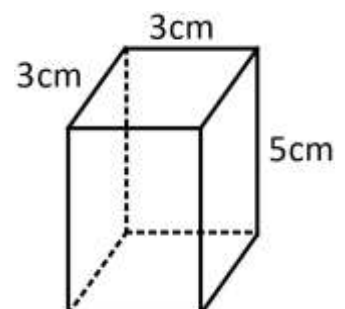
d) $\frac{36c}{4} =$

14.

a) Name this shape

b) Find it's volume

c) Find it's surface area



Key Skills Total: _____ / 19

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

PYTHAGORAS REVIEW

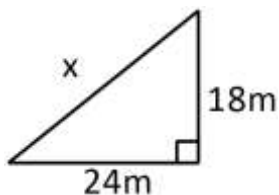
Find the length of the side marked x.

$$x^2 =$$

=

$$x =$$

$$x =$$

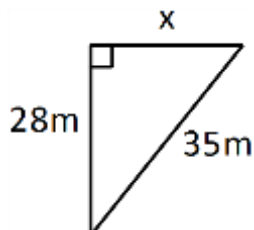


$$x^2 =$$

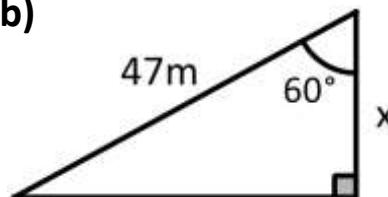
=

$$x =$$

$$x =$$

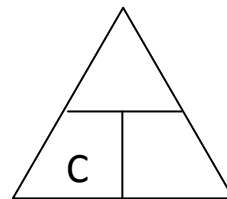


b)

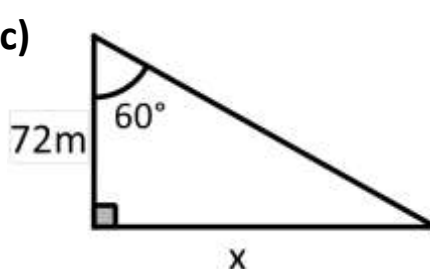


$$x = \cos \dots\dots x \dots\dots$$

=

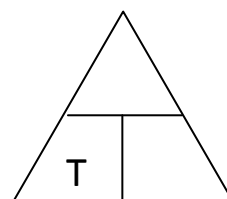


c)



$$x = \tan \dots\dots x \dots\dots$$

=



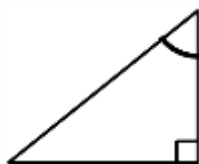
TRIGONOMETRY

1. Label the sides of the following triangles adjacent, opposite or hypotenuse

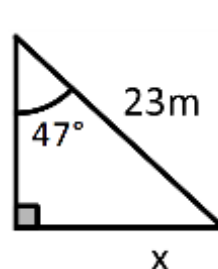
a)



b)

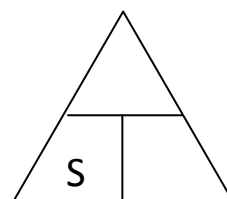


d)



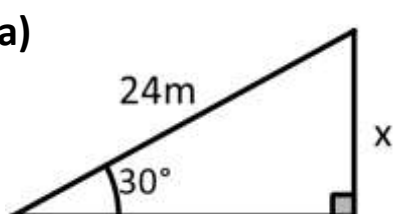
$$x = \dots\dots\dots x \dots\dots$$

=



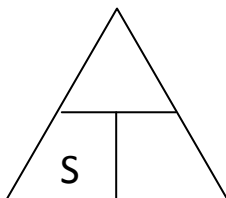
2. Find the missing sides using SOHCAHTOA

a)

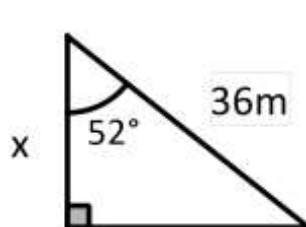


$$x = \sin \dots\dots x \dots\dots$$

=

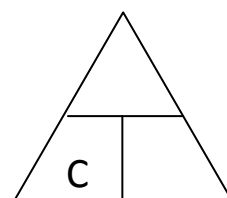


d)



$$x = \dots\dots\dots x \dots\dots$$

=



Current Work CL4-5: ___ / 15

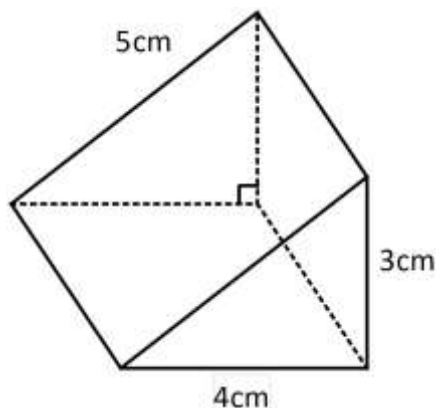
REVIEW and CURRENT WORK (CL 5 – 6): Trigonometry

A. General Review

1. There were 12,384 people at a Super Rugby game. Of these 3428 supported the visiting team. What percentage is this?

2. To get violet you mix red and blue in the ratio 2:3. If you want to make up 500mL of violet paint how much red will you need?

3.
a) Name this shape

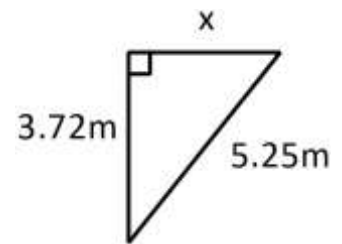
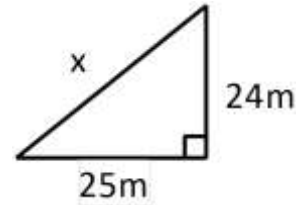


b) Find it's volume

c) Find it's surface area

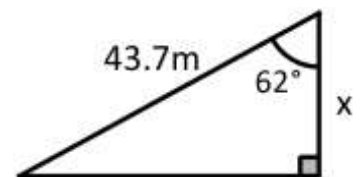
d) Find it's liquid capacity

B. Pythagoras Review: Find the length of the side marked x on these triangles. Show all working.

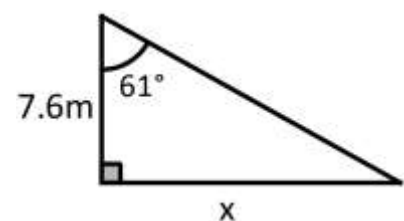


C. Trigonometry Find the length of the side marked x on these triangles. Show all working.

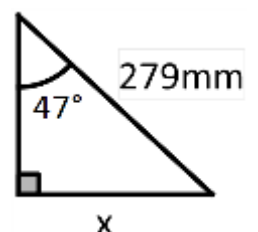
a)



b)



c)



Current Work CL5-6: ____ /11

APPLICATIONS and TASKS

For each of these tasks you ***must show your working***. Set out your solution in a clear and ordered manner. It is a good idea to draw a sketch for each situation.
Read the question carefully.

Task One (2 marks)

A ladder is 4.5m in length is leaning against the wall. The angle between the ladder and the wall is 27° . Calculate the height the ladder extends up the wall.

Task Two (2 marks)

A man is lying on a cliff top. He looks down at an angle of depression of 47° and sees a boat 500m away from the base of the cliff. How high is the cliff?

Task Three (2 marks)

A girl 1.65m tall looks up at the top of J block. She is standing 15m away and looks up at an angle of elevation of 48° . How tall is J block?

Applications Total: _____ / 6

Overall Results:

KS	CL4-5	CL5-6	APP	Parent Signature:
22	15	15	6	