TAURANGA GIRLS COLLEGE
YEAR 10 HOMEWORK SHEET
Series C Sheet 1
TGC Values: Respect, Participation, Pride

Name: _____

Due Date: _____

KEY SKILLS:

1. In the number 8765.4321 what digit is in the *thousandths* column? _____

2. Round 0.259 to the nearest *hundredth*

_____

3. Write *sixty two hundredths* as a decimal

_____

4. 5½ m = _____ cm

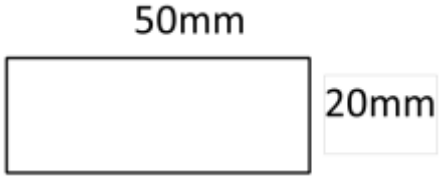
5. How many *kilograms* are there in *six tonnes*? _____

6. Calculate 35% of $560

_____

7. Increase $45 by 10%

8. What is the *perimeter* of this rectangle?



_____mm

9. What is the *area* of the rectangle shown above?

_____mm^2

10. It was recorded how long some year 10 students took to run 40 metres. The times were recorded to the nearest second.

a) How many students ran?

_____

b) What was the *median* time? ? _____

c) What was the *upper quartile* time? _____

d) What is the *shape* of the times to run 40 metres? _____

*Key Skills Total: _____ / **13***

REVIEW and CURRENT WORK (CL 4 – 5): Number and Algebra

(You can use a calculator)

A. Review

1. 34^2 =

2. $\frac{3}{4}$ of \$480 =

3. $\sqrt{351}$ = (1dp)

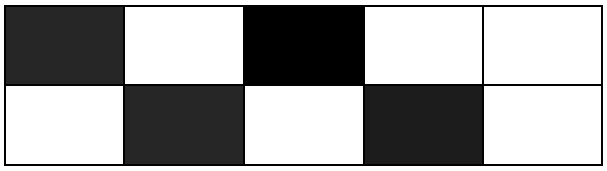
4. 18% of \$580 =

5. 28 out of every 40 people have been to Australia.

Fraction =

Percentage is …

6.



In the diagram above give:

a) The ratio of Shaded to Unshaded sections

b) Simplify this ratio

7. Divide \$45 in the ratio 2:3

B. Current Work

Substitution

If a = 8, b = 12, c = 3 and d = ⁻4,

find the value of:

a) b – c =

b) c + d =

c) 5a =

d) ac =

e) 2ad =

f) $\frac{a}{2}$ =

g) $\frac{2b}{c}$ =

h) a^2 =

i) $2c^2$ =

j) d^2 =

k) 3a + 4d =

Working with formula.

Substitute into these formulas and find the value required

(a) d = v + t

find d, if v = 6 and t = 7

d =

=

(b) v = 3x + 7 find v if x = 5

v =

=

*Current Work CL4-5: ___ / **23***

REVIEW and CURRENT WORK (CL 5 – 6): Number and Algebra

(You can use a calculator)

A Review ...

Calculate

1. $\sqrt{5791}$ (2sf)

2. $5\frac{1}{5} - 2\frac{1}{3} =$

3. Estimate 29.2 x 613

≈ ..... x .....

=

4. There are 1248 children watching a football game. If they make up ⅜ of the total number of people watching how many were there in total?

5. What is the full cost of an item marked $720 + GST?

6. The Chiefs won 12 out of their last 15 games. What percentage is this?

7. The cost of a TV was reduced from $1680 to $1540. What percentage reduction is this?

8. Complete this table:

Ordinary form	Standard form
3600	
0.0067	
	2.3×10^5
	8.51×10^{-3}

C. Current Work

Substitution

If a = 8, b = 10, c = ⁻3 and d = ⁻4,

find the value of:

a) 3c – 5d =

b) $\frac{a - d}{2b} =$

c) $\frac{d}{a} =$

d) $3d^2 - a^3 =$

Working with formula.

Substitute into these formulas and find the value required

a) Find v if u = 8, a = 10 and t = 2

v = u + at

=

=

b) Find m if n = ⁻30 and d = ⁻45

$m = 3(4n - d^2)$

=

=

Current Work CL5-6: ___ /17

APPLICATIONS and TASKS

*For each of these tasks you **must show your working.*** Set out your solution in a clear and ordered manner. Your final step should be to write a sentence which gives your answer to the question. (One mark for the working and one mark for the correct answer). **Read the question carefully.**

Task One

David sells flowers at the Saturday market. He sells first grade roses for $1.50 a stem and second grade for $1.20 a stem. This week he had 45 first grade and 80 second grade stems for sale. He sold 60% of the first grade and $\frac{3}{5}$ of the second grade. *What was the total value of his sales for this week?*

If it cost him 40 cents to produce each stem and the cost of the stall at the market was $20, what was his profit (or loss) for the day?

Task Two

The cost of hiring a car depends on the number of days it is hired and the number of kilometres travelled.
The cost **($C)** of hiring a car for **d** days and for travelling **k** km can be calculated using the formula

C = 30d + 0.45k

a) What are the cost per day and the cost per kilometre for hiring this car?
b) Find the cost of hiring a car for 6 days and travelling 950km.

Task Three

For a different car the cost per day was $25 and the cost per kilometre was 55 cents. Find the cost of hiring this car for 6 days and travelling 950km.
Compare the cost of hiring the two cars in tasks 2 and 3. Which car is cheaper?
What is the percentage increase (or decrease) of car in task 2 compared to the car in task 3?

*Applications Total: _____ / **6***

Overall Results:

KS	*CL4-5*	*CL5-6*	*APP*	*Parent Signature:*
13	***16***	***14***	***6***	