TAURANGA GIRLS COLLEGE
YEAR 10 HOMEWORK SHEET
Series B Sheet 5
TGC Values: Respect, Participation, Pride

Name: _____

Due Date: _____

KEY SKILLS:

1. In the number 567.892 what digit is in the *thousandths* column?

2. Round 0.3815 to the nearest *thousandth,*

3. Write *fifteen hundredths* as a decimal

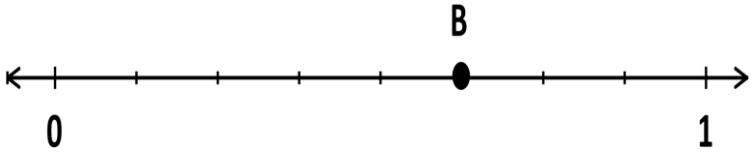
4. Insert < or > to make it a true statement:
0.004 ____ 0.007

5. Write 2x2x2x2x2x2x2 using powers.

6. List all the factors of 30

7. Complete this equivalent fraction: $\frac{2}{5} = \frac{\_\_}{45}$

8. What *fraction* is shown by the point B on the number line below?



9. 4½ km = _____ m

10. How many square metres in *one hectare*? _____

11. If m = 7 and n = -5, what is the value of:
3m – 2n = _____

n^2 = _____

$\frac{n}{2}$ = _____

12. If 50h = 600, what value is h?

13. Calculate $\sqrt{46}$ and round your answer to 1dp

14. Calculate 44.3% of $7780

15. Write $350 as a percentage of $5000

16. Divide $140 in the ratio 2:5

*Key Skills Total: _____ / **18***

CURRENT WORK (CL 4 – 5): Statistics (You can use a calculator)

Data Analysis –Middle and Spread

The data below gives the armspan length for a group of girls (in cm)

142, 147, 147, 151, 154, 154, 159, 163, 163, 164, 169, 172, 173, 177

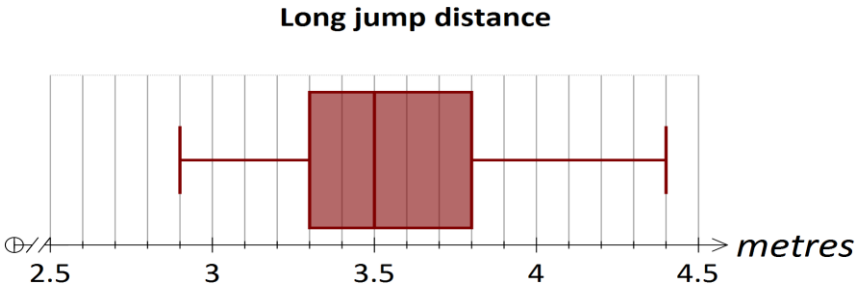
1. What is the *median* armspan? _____

2. What is the *lower quartile* armspan? _____

3. What is the *upper quartile* armspan? _____

4. What is the *interquartile range* of the armspan? _____

Miss Jones, the PE teacher for 10DFG, has recorded the distance the girls jumped in the long jump. She recorded the distance to the nearest 0.1m and displayed the data in a box plot. There are 28 girls in the class.



5. What was the *median* distance? _____

6. What was the *range* of distances? _____

7. What was the *upper quartile* distance? _____

8. What was the *interquartile range* of distances? _____

9. What *percentage* of the class jumped less than 3.3m? _____

10. *How many* jumped at least 3.5m? _____

11. What is the *shape (distribution)* of jump distances? _____

12. Miss Jones posed this question:

"I wonder if on average the girls in 10DFG can jump more than 3.3m"

Complete this response:

On average the girls in 10DFG *(*choose one) *can / cannot* jump more than 3.3m because ……

*Current Work CL4-5: ___ / **17***

CURRENT WORK (CL 5): Statistics (You can use a calculator)

Data Analysis – Comparing Middle and Spread

The table below gives the resting heart of a group of adults and a group of children in bmp (beats per minute).

The rates are given in order from the least to the greatest:

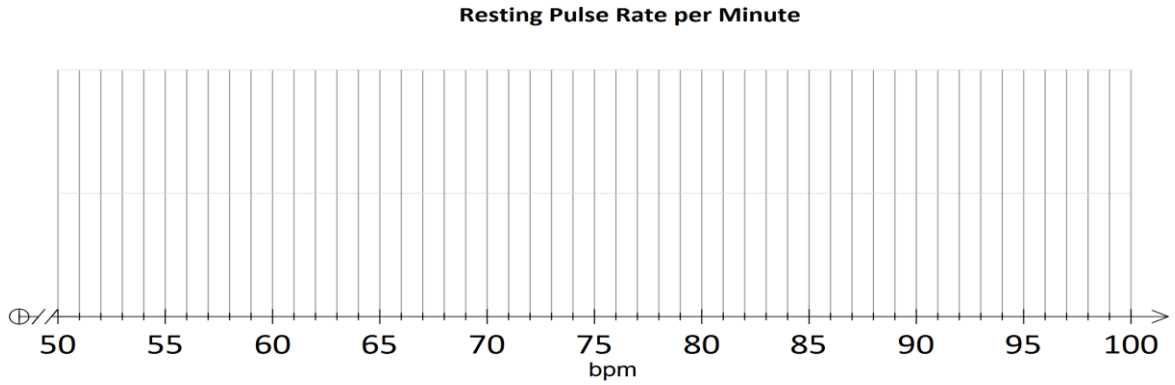
Children	65,70,70,71,71,72,72,75,75,75,75,76,76,78,80,82,89,90,90

Adults	55,58,60,61,62,65,65,65,65,67,69,70,75,76,78,78,90

Complete this table of statistics for the rates in each group:

	Median	Mean	Range	IQR
Children				
Adults				

Complete this box plot for each group:



Complete these sentences using your statistics and box plot:

The median heart rate for the adults group is _____ bpm and the median heart rate for the children's group is _____ bpm. This tells us that on _____ the children's group have a _____ _____ _____ than the adult group.

The middle 50% of heart rates for the adult group is further _____ the scale than the middle 50% of heart rates for the children's group. This tells us that the heart rates of the middle 50% of children tend to be _____ than the heart rates of the middle 50% of adults.

The IQR of the children's heart rates is _____ bpm, but for the adults it is _____ bpm. This tells us that the _____ of the heart rates for the middle 50% of the _____ is _____ than for the adults.

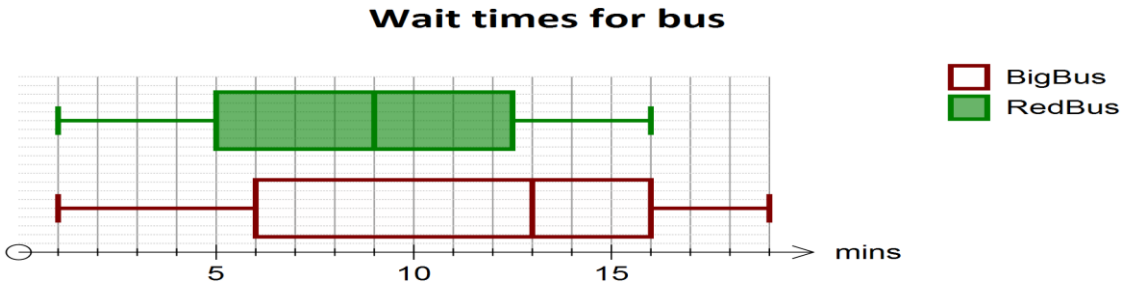
*Current Work CL5 (1): ___ / **25***

FURTHER CURRENT WORK (CL 5): Statistics

John and Hilary want to compare the time they have to wait for their bus. Hilary travels with *BigBus* and John travels with *RedBus.* They record how late their buses are over a one month period.

Complete the **question** they could have posed:
We wonder if the wait times for *BigBus* tend to be longer than the_____ _____ for _____?

Here is their **analysis**:
They presented their data on a box plot:



They wrote these statements:
The median waiting time for *BigBus* was _____ minutes and for *RedBus* was _____ minutes.
This shows that ___ _____ waiting times for *BigBus* were _____ than for *RedBus*.

The middle 50% (the box) for waiting times for *BigBus* is shifted further _____ the scale than the middle 50% (the box) for *RedBus*. This shows that the middle 50% of waiting times for *BigBus* are _____ than the middle 50% of waiting times for *RedBus*

The distribution (shape) of the waiting times for *RedBus* seem _____, but the waiting times for *BigBus* boys seems skewed to the _____.

The IQR for the waiting times for *BigBus* is _____ minutes, but the IQR for the waiting times for *RedBus* is _____ minutes. This shows that the spread of the middle ____ % of waiting times for *BigBus* is _____ than the spread of the middle ____ % of waiting times for *RedBus.*

Here is their **conclusion:**
It seems that the waiting times for *BigBus* are _____ than the waiting times for *RedBus.*
This conclusion is based on the fact that the _____ waiting time for *BigBus* is _____ minutes longer than the waiting times for *Redbus.* Also, the middle 50% of waiting times for _____ is further up the scale in comparison to the middle 50% of waiting times for _____.

*Current Work CL5 (2): ___ / **19***

Overall Results:

KS	*CL4-5*	*CL5(1)*	*CL5(2)*	*Total*	*Parent Signature:*
18	***17***	***25***	***19***	***79***	