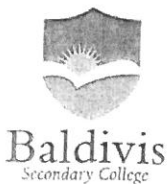
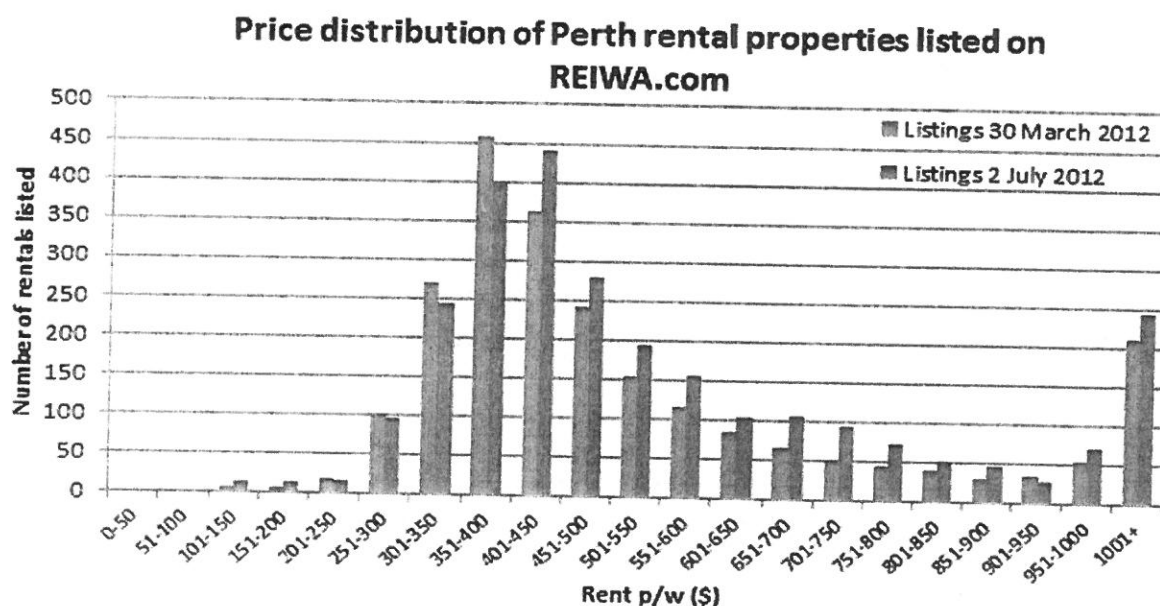


Name:	<u>SOLUTIONS</u>		Date: _____
Class:	_____		
	<b>Year 11 Essential Mathematics</b> <b>Unit 1 Test 3 2019</b> <b>Topic – Graphs</b>		/ 42
Total Time:	45 minutes		
Weighting:	4%		
Equipment:	To be provided by the student: Pen, pencil, ruler, 1 A4 page of notes, scientific calculator		

**Full working out must be shown to get full marks. Attempt all questions.**

1. [5 marks: 1,1,1,2]



a. From the above graph what is the lowest rent per week?

101-150

b. What is the highest rent per week?

1001+

c. Which rent bracket has the most number of rentals?

351-400

d. Explain why the \$1001+ rent p/w column has a sharp increase compared to the previous columns.

includes more than the others  
groups of 50

2. [10 marks: 7,1,1,1]

56 children were asked which of the following hobbies they prefer. Their results are recorded in the table below.

	Computer games	Watch Films	Read	Total
Girls	5	11	6	22
Boys	19	11	4	34
Total	24	22	10	56

a. Complete the missing values

b. How many boys prefer computer games?

19

c. What percentage of children watched films?

$$\frac{22}{56} \times 100 = 39.3\%$$

d. What percentage of girls read books?

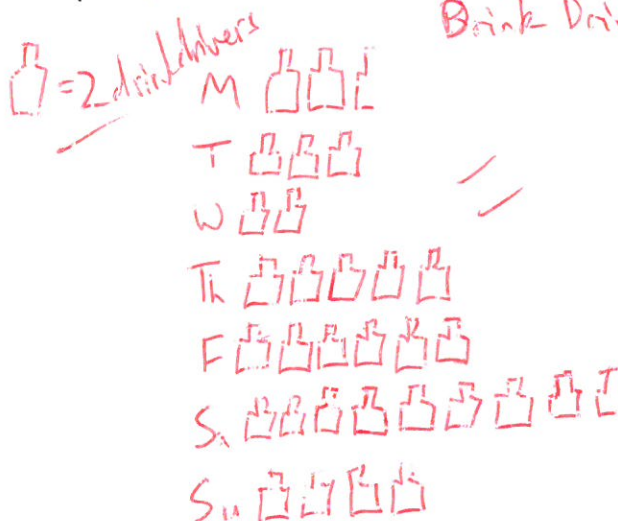
$$\frac{6}{22} \times 100 = 27.3\%$$

3. [4 marks]

Police recorded the average number of people caught drink driving on the same section of road on different nights of week.

Monday	5	Tuesday	6	Wednesday	4	Thursday	10
Friday	12	Saturday	17	Sunday	8		

Represent the above information as a pictograph. Use a bottle to represent two people.



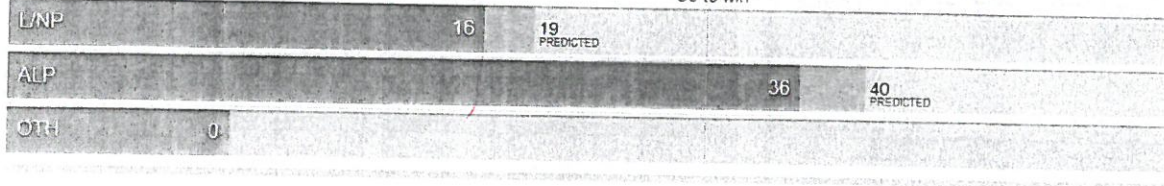
Drink Drivers

✓ Key  
 ✓ title  
~~✓ table~~  
 ✓ correct graph

4. [3 marks]

67.2% COUNTED (10 minutes ago).  
7 in doubt.

30 to win



List 3 things that are missing or wrong with this graph.

- other is on 0 yet has a bar
- Scale
- title

any valid 3

5. [6 marks]

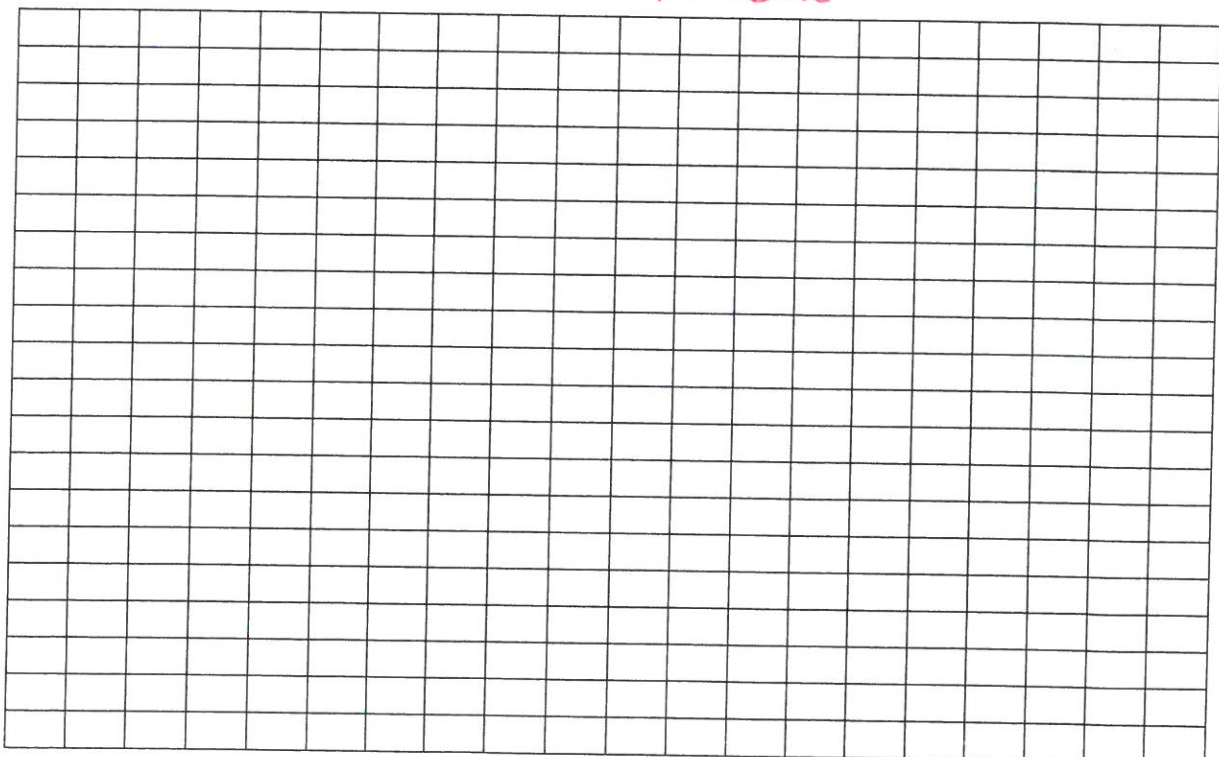
The following data set shows the temperatures over 1 day.

Time	Noon	3pm	6pm	9pm	Midnight	3am	6am	9am	noon
Temperature	30C	33C	30C	29C	25C	23C	22C	28C	32C

Draw an appropriate graph for this data

continuous data →

- ✓ - line graph / histogram
- ✓ - title
- ✓ - axes labeled
- ✓ - scale
- ✓ - drawn correctly

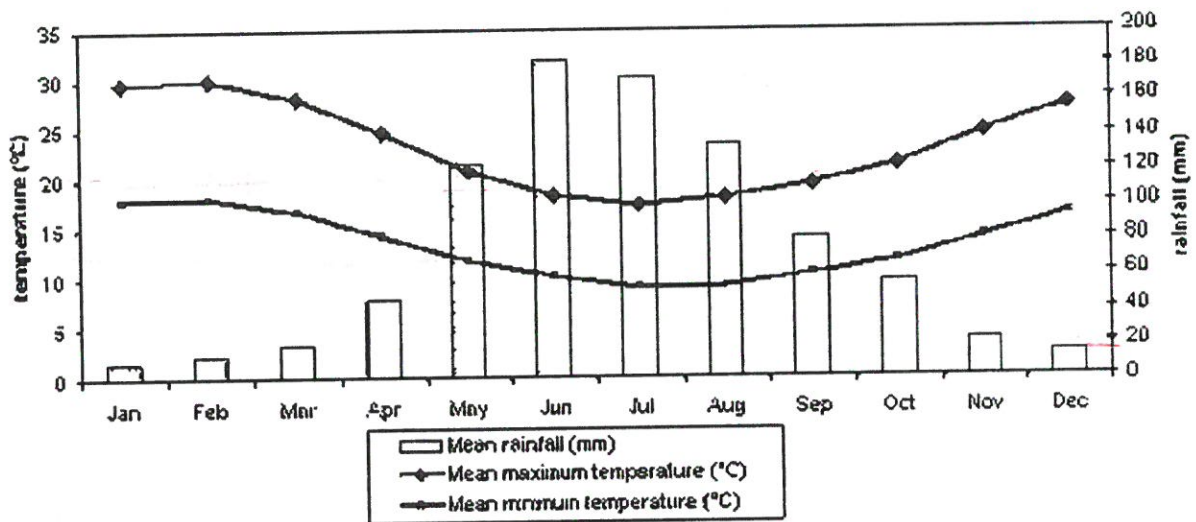


6. [6 marks]

Data	Display/graph	Reason
The percentage of students in each year group at school		categorical
The price of fuel over a week	line graph	continuous
The favourite chocolate bars of students at school	pie, bar, colour in etc	categorical

Suggest which data display or graph would be best for each data set and give your reason

7. [8 marks: 1,1,2,2,2]



- What is the mean maximum temperature in September?  
*20°*
- Which month has the coldest mean minimum temperature?  
*July*
- What is the difference between the mean maximum and mean minimum temperatures in May?  
 $\approx 22 - 13 = 9$
- How much more rain falls in June than December?  
 $180 - 15 = 165$  ✓
- Describe the annual rainfall pattern?

*low increases to the middle of the year  
then decreases.* ✓