

**Exercise 1**

Calc. : ✗

Mr Maier is a maths teacher in a rural area. Most of his P1 students live on a farm. In order to teach the children how to count, he asks the class to write down the total number of animals on the farm as homework.

Name	Kim	Tim	Ali	Ben	Sue	Peter	Hugo	Anna	Kira
Number of animals	16	19	18	47	12	18	18	19	17

Then he uses this information to test his S5 students in statistics, asking them to:

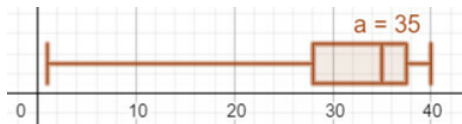
1. State the following values:  
(a) The minimum and the maximum  
(b) The range  
(c) The median  
(d) The first quartile and the third quartile

2. Draw a box plot for the number of animals.

3. Compare the box plot shown below to the one from part 2). Make three statements based on the statistical parameters comparing the two box plots.
- 9 marks

4 marks

3 marks



4. Calculate the mean of the following values:  
  
16, 15, 13, 30, 27, 15, 24

5. Explain what is an outlier based on one of the previous examples.
- 3 marks

1 mark

**Exercise 2**

Calc. : ✗

A bag contains 6 plastic counters: 4 red counters and 2 white counters.  
A counter is taken out from the bag, its colour recorded and it is not replaced.  
A second counter is taken from the bag and its colour recorded.

1. Draw a tree diagram to show all the possible outcomes for this situation.

2. Calculate the probability that both counters are red.

3. Calculate the probability that both counters are red, given that the second counter was red.
- 4 marks

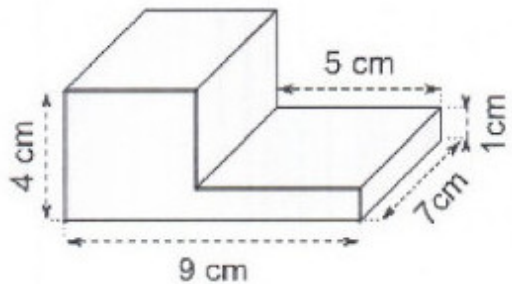
2 marks

4 marks

**Exercise 3**

Calc. : ✗

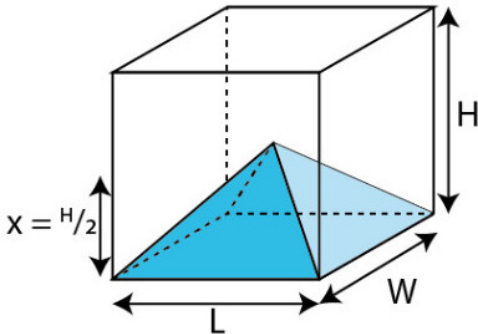
Calculate the surface area of the following shape:



10 marks

**Exercise 4**

Calc. : ✗

<p>A solid is made by removing a pyramid from a cuboid. The cuboid has the dimensions: <math>H = 12</math> cm; <math>L = 4</math> cm; <math>W = 3</math> cm.</p> <p>The pyramid is half the height of the cuboid.</p> <p>1. Calculate the volume of the cuboid.</p> <p>The formula to compute the volume of a pyramid is:</p> $\frac{1}{3} \times \text{Area}(\text{base}) \times \text{height}$ <p>2. Calculate the volume of the pyramid.</p> <p>3. Calculate the volume of the solid.</p>			
			3 marks
			3 marks
		2 marks	