

## Worksheet: Statistics

1. The following are the marks obtained by students in a Math Quiz:

2     4     7     9     2     8     2     3     4     6  
3     7     2     3     6     7     4     6     5     3  
4     6     3     5     3     2     5     7     8     4

- (a) Copy and complete the following table:

Marks(x)	Tally	Frequency (f)	fx
2			
3			
4			
5			
6			
7			
8			
TOTAL			

- (b) State the modal mark(s).  
(c) Use the table to find the mean mark.  
(d) What is the probability that a student selected at random scored a mark of AT LEAST 6?

2. The heights of a sample of persons are shown in the table below:

Height (cm)	Class Mid-points(x)	Frequency (f)	fx
101-110		8	
111-120		18	
121-130		12	
131-140		34	
141-150		10	
151-160		22	
161-170		6	
TOTAL			

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- (a) Copy and complete the above table;
- (b) Identify the modal class interval.
- (c) Calculate the mean height for the sample, correct to 1 decimal place;
- (d) State why the value of the mean is only an estimate of the true value;
- (e) What is the probability that a student selected at random is:
  - (i) AT LEAST 121 cm tall?
  - (ii) AT MOST 140 cm tall?

3. The weight of 100 students used as a sample for a study are summarized in the table below:

Weight (kg)	Class Mid-points(x)	Frequency (f)	
91-100		10	
101-110		20	
111-120		22	
121-130		10	
131-140		18	
141-150		8	
151-160		12	
TOTAL			

- (a) For the class interval “111-120” state:
  - (i) The class size;
  - (ii) The lower class limit;
  - (iii) The upper class boundary;
- (b) Copy and complete the above table;
- (c) Using a scale of 2cm to represent 10kg on the horizontal axis and 2 cm to represent 2 persons on the vertical axis, draw a frequency polygon to represent the data as shown in the completed table in (b) above.