



Al Sharq Bright International School
Model Paper for Mid Term Exam 2017-2018

Name: _____ **Subject:** Mathematics **Class:** 10__ **Date:** _____

Paper – 2

1) For the given sequences below, find the n^{th} term and then find the 20^{th} term.

a) 18, 9, 4.5,

b) 4,7,12,19.....

2) For both the following calculate u_5 and u_{100} .

a) $u_n = 6n - 3$

b) $u_n = -\frac{1}{2}n + 4$

3) Find the mean, media, mode and range of the data given below.

a) 28, 24, 25, 25, 26, 28, 27, 29, 26, 26, 24, 21, 25, 26

4) The height of 50 basketball players attending tournament are recorded in the grouped frequency table.

Note: 1.8- means $1.8 \leq H < 1.9$.

Height (m)	Frequency
1.8-	2
1.9-	5
2.0-	10
2.1-	22
2.2-	7
2.3 - 2.4	4

- a) Estimate the mean height of the players
- b) What is the modal class height of the players

5) What is the probability of throwing the following numbers with a fair dice?

- a) a2
- b) not a2
- c) less than 5
- d) a7

Paper – 4

6) For the following quadratic functions, construct a table of values and then draw the graph

$$y = -x^2 - 2x - 1, \quad -4 \leq x \leq 2$$

7) Plot the function $y = 2x^3 - x^2 + 3$ for $-2 \leq x \leq 2$. Showing your method clearly, use the graph to solve the equation $2x^3 - 7 = 0$.

8) The dice were thrown 100 times. Each time their combined score was recorded. Below is a table of the results. Calculate the mean score.

score	2	3	4	5	6	7	8	9	10	11	12
frequency	5	6	7	9	16	14	13	11	9	7	3

Note: This is just a model, not the exam paper.