2.16 Pop Quiz: Descriptive statistics introduction

1. Write down the topic of your exploration paper. Start with the phrase, "The aim of my paper is ..."

2. For homework, you read an exploration paper written by a BECA student last year titled, *Subway Linear Regression*. Where did the author collect his data?

3. A box contains 100 cards. Each card has a number between one and six written on it. The following table shows the frequencies for each number.

Number	1	2	3	4	5	6
Frequency	26	10	20	k	29	11

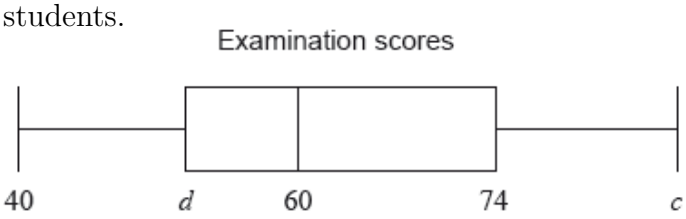
   (a) Calculate the value of k. [3 marks]

   (b) Find

      i. the median; [2 marks]

      ii. the interquartile range. [3 marks]

4. The following box-and-whisker plot represents the examination scores of a group of students.



(a) Write down the median score. [1 marks]

The range of the scores is 52 marks, and the interquartile range is 19 marks.

(b) Find the value of

i. c; [2 marks]

ii. d. [2 marks]

5. The scores of 30 students taking an IB Paper 2 are shown in the frequency table below.

Mark (x)	$10 \leq x < 30$	$30 \leq x < 50$	$50 \leq x < 70$	$70 \leq x < 90$
Frequency	8	12	7	3

(a) Write down the modal class. [1 mark]

(b) Estimate the mean score $\overline{x}$. [3 marks]

(c) Estimate the standard deviation of the scores, σ. [3 marks]