

Show all work clearly and in order, and circle your final answers. Justify your answers algebraically whenever possible; when you do use your calculator, sketch all relevant graphs and write down all relevant mathematics. You are not allowed to get help from the tutoring centre or your classmates. The only person you may talk about the quiz is the instructor.

1. (10 points)

- (a.) Your awesome instructor collected data on WCU's basketball scores last year. Create stem-and-leaf display of the basketball data below. *Don't forget to make a key indicating the units for stems and leaves.*

77 74 83 61 68 59 98 58 78 77 68 55 92 63 106 72 74
68 67 60 77 78 60 84 83 73 82 74 70 81 86 66 99 53

- (b.) Describe the shape of the distribution and any unusual observations.

2. (10 points)

- (a.) The accompanying data on annual maximum wind speed (in meters per second) in Hong Kong for each year in a 45-year period were given in an article that appeared in the journal *Renewable Energy*. Use the annual maximum wind speed data to construct a histogram.

30.3	39.0	33.9	38.6	44.6	31.4	26.7	51.9	31.9
27.2	52.9	45.8	63.3	36.0	64.0	31.4	42.2	41.1
37.0	34.4	35.5	62.2	30.3	40.0	36.0	39.4	34.4
28.3	39.1	55.0	35.0	28.8	25.7	62.7	32.4	31.9
37.5	31.5	32.0	35.5	37.5	41.0	37.5	48.6	28.1

- (b.) Is the histogram approximately symmetric, positively (right) skewed, or negatively (left) skewed?

- (c.) Would you describe the histogram as unimodal, bimodal, or multimodal?