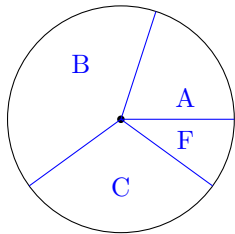


# Quiz 6

Show all your work

Name: \_\_\_\_\_  
Number: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Score: \_\_\_\_/10

**Problem 1:** Suppose among a class of 50 students, 10 students get A, 20 students get B, 15 students get C, and the rest get F. Draw a pie chart for the above data. Include your steps for the calculation of each sector angle in the pie.



A	10	$\frac{10}{50} = 20\%$	$\frac{10}{50} \times 360^\circ = 72^\circ$
B	20	$\frac{20}{50} = 40\%$	$\frac{20}{50} \times 360^\circ = 144^\circ$
C	15	$\frac{15}{50} = 30\%$	$\frac{15}{50} \times 360^\circ = 108^\circ$
F	5	$\frac{5}{50} = 10\%$	$\frac{5}{50} \times 360^\circ = 36^\circ$
Total	50	100%	360°

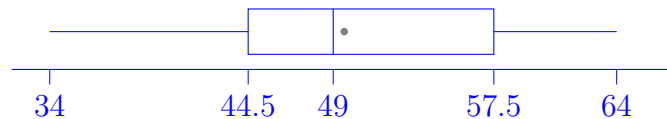
Score: /2

**Problem 2:** Below is a list of ages of 12 instructors in the Department of Mathematics and Statistics at CapU.

61, 45, 46, 51, 50, 44, 34, 37, 48, 64, 55 and 60.

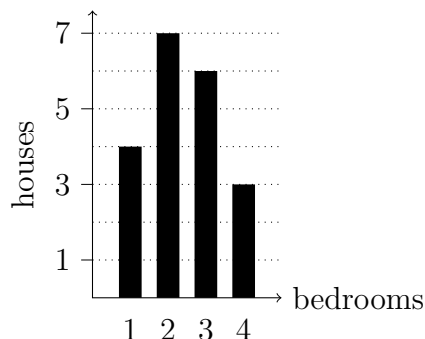
Construct first a stem-and-leaf plot, then a box-and-whisker plot by computing the median, first and third quartiles complete with the minimum and the maximum.

Min	34
1st Quartile	$\frac{44+45}{2} = 44.5$
Median	$\frac{48+50}{2} = 49$
3rd Quartile	$\frac{55+60}{2} = 57.5$
Max	64
Mean	49.58
Mode	none



Score: /4

**Problem 3:** The bar graph shown is a summary of a survey of the number of bedrooms (on the horizontal axis) in a sample of houses sold in the last quarter in the Sunshine Coast. The vertical axis shows the frequency as number of houses. Answer the following.



a. Find the total number ( $n$ ) of houses in this sample. 20 houses

$$4 + 7 + 6 + 3 = 20 \text{ houses}$$

b. State the median including units.

2 BRs/house

c. Find the average number of bedrooms for houses sold in this sample.

2.4 BR/house

There is a total of  $4 \times 1 + 7 \times 2 + 6 \times 3 + 3 \times 4 = 48$  bedrooms, so the average is  $48/20 = 2.4$  bathrooms per house.

Score: /4