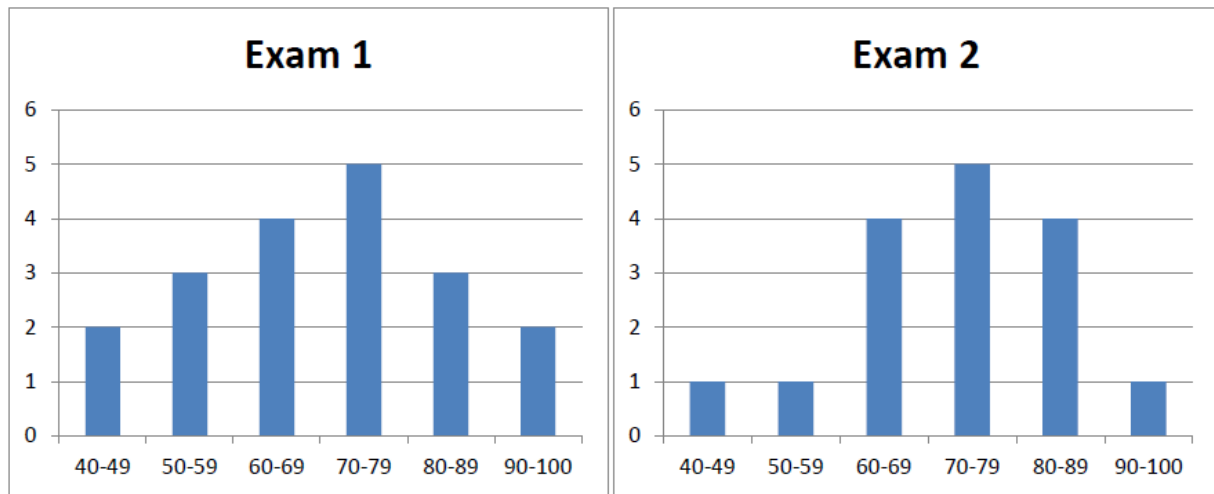


1. Which data set has a larger standard deviation? Explain.



Exam 1

Looking at the diagrams, in Exam 1 the bars are higher in the centre and also in the ends. Unlike in exam 2 where the bars are higher in the centre and low at the tails.

2. Pick 2 NFL teams. Find the points scored each game in this season for both teams. Calculate the standard deviation for points scored for both teams.

Team	Bengals	AFL South
Won	6	11
Points Awarded	455	316

Standard deviation;

$$\text{Mean} = \frac{455+316}{2}$$

$$= 385.5$$

$$455 - 385.5 = (69.5)^2 = 4830.25$$

$$316 - 385.5 = (-69.5)^2 = 4830.25$$

$$\frac{4830.25 + 4830.25}{2}$$

$$= 4830.25$$

Therefore, Standard Deviation = $\sqrt{4830.25}$

$$= 69.5$$

3. Find the 5 number summary for the female and male students in MAT 141.

a) female heights

b) male heights

. a)Female heights

Student	A	B	C	D	E	F	G
Height in cm	150	152	160	161	164	170	171

Therefore,

The summary:

Minimum = 150 cm

First Quartile, Q1 = 152 cm

Median = 161 cm

Third Quartile, Q3 = 170 cm

Maximum = 171 cm

b.Male Heights

Student	Q	R	S	T	U	V	W
Height in cm	160	161	163	166	169	170	173

The summary ;

Minimum = 160 cm

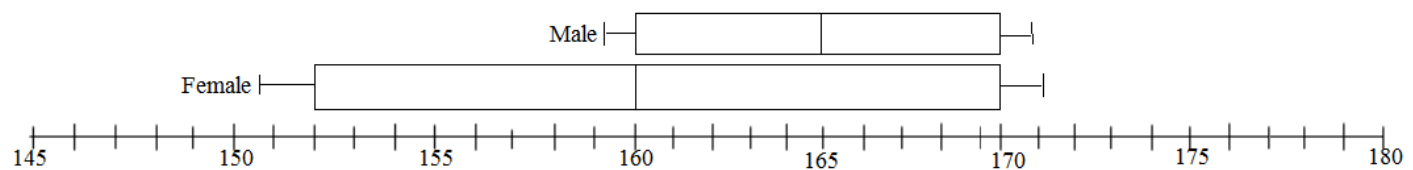
First Quartile, Q_1 = 161 cm

Median = 166 cm

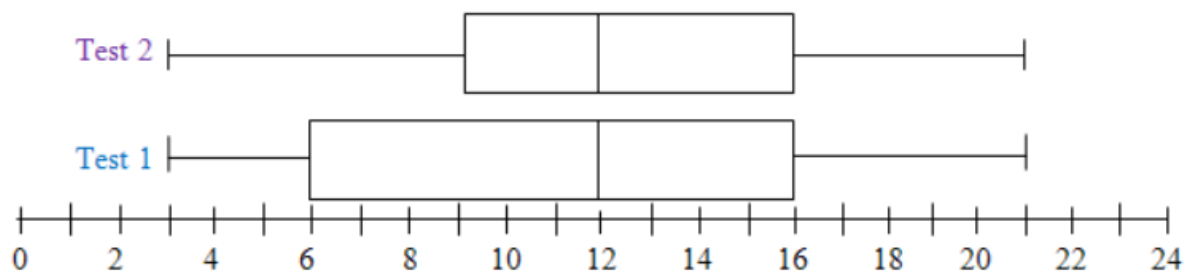
Third Quartile, Q_3 = 170 cm

Maximum = 173 cm

4. Construct a side by side box plot for female students and male students.



5.



a) Find the range for both tests.

b) Find the median for both tests.

c) In Test 1, what percent of the data falls between 6 and 16?

d) In Test 2, what percent of the data falls between 9 and 16?

e) Which test has a smaller standard deviation?

a. Range :

$$\text{Test 1} = 21 - 3$$

$$= 18$$

$$\text{Test 2} = 21 - 3$$

$$= 18$$

b. Median = 12

$$\text{c. } 95 - 68 = 27$$

$$27 \div 2 = 13.5$$

$$68 + 13.5 = 81.5\%$$

d. 59.5%

e. Test 2