



















- 3.3 The following data refers to the number of motorists that were given speeding fines for first thirty weeks of the year.

45	68	123	101	55
56	58	115	78	78
60	112	69	75	90
94	68	104	93	99
78	49	60	79	100
80	72	66	82	88



- 3.3.1 Draw a stem and leaf plot for the information given above. (4)
- 3.3.2 Determine the modal value (mode) for the data set. (1)
- 3.3.3 Determine the median value for the data set. (2)
- 3.3.4 Calculate the range for the data set. (2)
- 3.4 Given: 6; 14; 17; 19; 17; 8; 11; 16; 26; 11; 13; 6
- 3.4.1 Determine the mean value for the data set. (3)
- 3.4.2 Calculate the values for the first quartile ( $Q_1$ ) and the third quartile ( $Q_3$ ). (4)
- 3.4.3 Determine the inter-quartile range ( $IQR$ ) for the data set. (2)
- 3.4.4 Determine the value of the 70<sup>th</sup> percentile ( $P_{70}$ ). (3)

[40]

**TOTAL: 100**

**Formulae Sheet**

1)  $A_{\text{square}} = l \times l = l^2$

2)  $A_{\text{rectangle}} = l \times w$

3)  $A_{\text{triangle}} = \frac{1}{2} b \times h$

4)  $A_{\text{circle}} = \pi r^2$

5)  $C = 2\pi r$

6) Area of parallelogram = base  $\times$  perpendicular height

7)  $A_{\text{hexagon}} = \frac{3\sqrt{3}}{2} L^2$

8)  $A_{\text{hexagon}} = \frac{\sqrt{3}}{2} W^2$

9)  $A_{\text{cylinder}} = 2\pi r(h + r)$

10) Volume = Area of base  $\times$  perpendicular height

11) Total surface area of a triangular prism = (height of prism  $\times$  perimeter of base) + 2 (area of base)

12)  $m = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$

13)  $D = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

14)  $M = \left( \frac{x_1 + x_2}{2} ; \frac{y_1 + y_2}{2} \right)$

15)  $\theta = \tan^{-1} m$

16)  $\bar{x} = \frac{\sum_{i=1}^n x_i}{n}$  or Mean =  $\frac{\text{total or sum of all items}}{\text{number of items}}$

17)  $R = X_n - X_1$  or Range = highest value – lowest value



$$18) \bar{x} = \frac{\sum f_i x_i}{n}$$

$$19) Q_{j \text{ position}} = \frac{j}{4}(n+1)$$

$$20) \text{Inter-quartile range} = \text{upper quartile} - \text{lower quartile} = (Q_3 - Q_1)$$

$$21) \text{Semi inter-quartile range} = \frac{1}{2} (\text{upper quartile} - \text{lower quartile}) = \frac{Q_3 - Q_1}{2}$$

$$22) P_{j \text{ position}} = \frac{j}{100}(n+1)$$



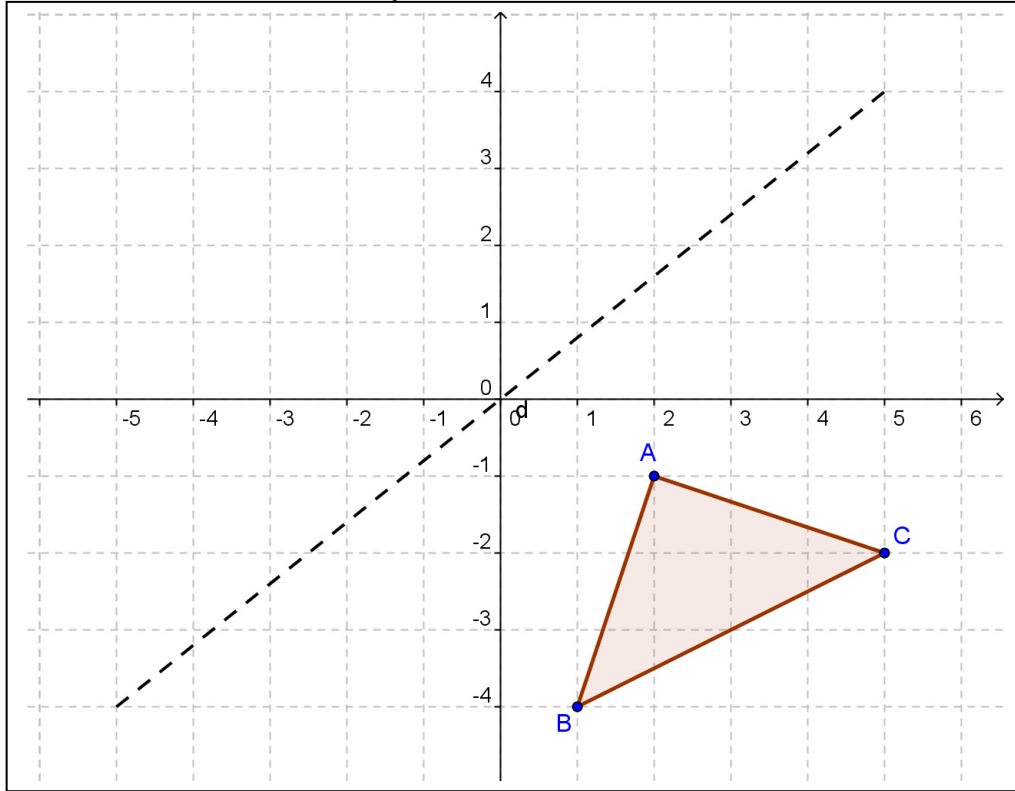
ANNEXURE A

ANSWER SHEET

EXAMINATION NUMBER:

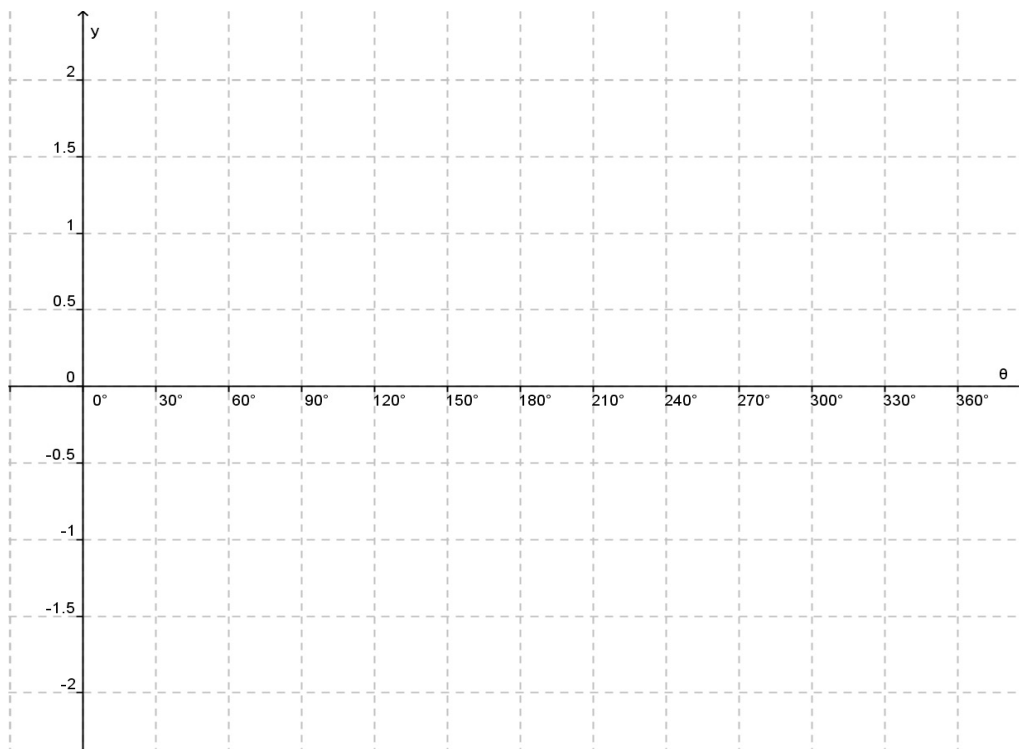
Detach Annexure A and hand it in with your answer booklet.

1.2.3



(3)

2.6



(6)



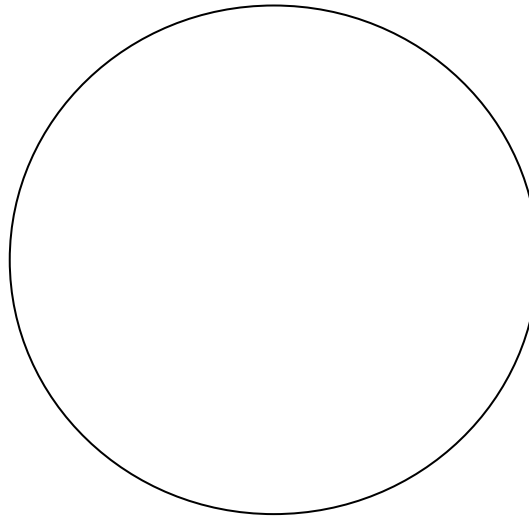
**ANNEXURE B**

**ANSWER SHEET**

**EXAMINATION NUMBER:**

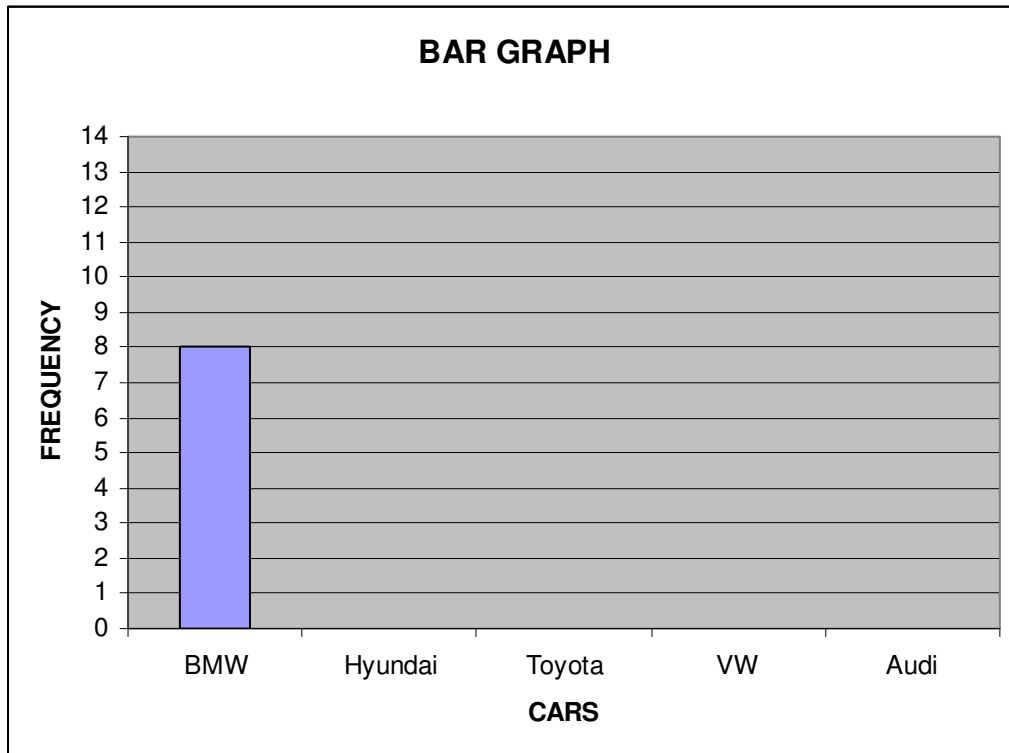
Detach Annexure A and hand it in with your answer booklet.

3.2.3



(5)

3.2.4



(4)

