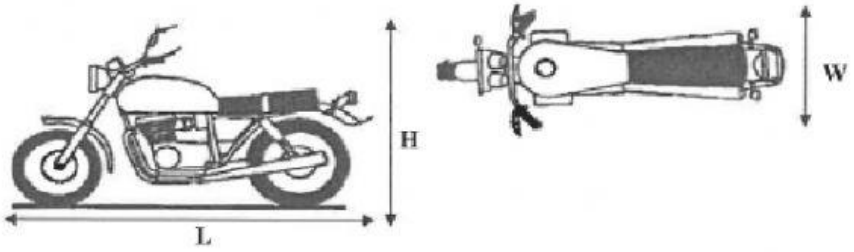
4.2 Four more friends will be joining Peet and Roland. They will travel by car and use a trailer to transport their motorcycles. To protect the motorcycles from damage, they need a 20 cm space around all four sides of the motorcycles.

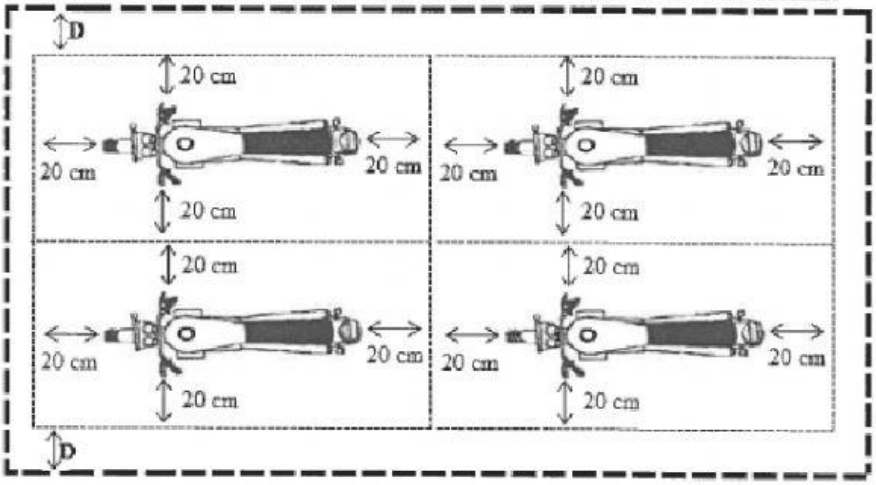
The dimensions of a single motorcycle are given below.



Length (L) = 229 cm, height (H) = 125 cm and width (W) = 86 cm

Below is the layout plan of the four motorcycles placed onto the trailer.

LAYOUT PLAN OF THE FOUR MOTORCYCLES ON THE TRAILER



KEY: ---- Outer dimensions of the trailer with a length of 550 cm and a width of 260 cm.

[Adapted from www.covercraft.com]

Use the sketches above to answer the questions that follow.

4.2.1 Calculate the minimum length required to safely place two motorcycles, one behind the other, onto the trailer, taking into account the precautionary measures above. (3)

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4.2.2 If the two motorcycles are placed in the centre of the trailer, **D** will be the equal distance on either side of the width of the trailer, as shown in the diagram.

Calculate (in cm) the value of **D**. (4)
[17]

QUESTION 5

5.1 TABLE 5 below shows the results of a recent gymnastics competition held at a school. The table shows the gymnasts' names, teams, divisions and various events with total scores given to three decimal places.

TABLE 5: RESULTS OF A GYMNASTICS COMPETITION

GYMNAST	TEAM	DIV.	EVENTS				TOTAL SCORE
			VAULT	BARS	BEAM	FLOOR	
G Gilliland	GTC	Senior A	9,550	9,100	9,400	9,625	37,675
H Radebe	Olympus	Junior B	9,450	9,250	8,900	9,400	37,000
L Gumede	Olympus	Junior A	9,475	9,300	8,700	9,500	36,975
S Rigby	TGA	Senior A	9,500	8,650	8,925	9,350	36,425
H Khumalo	GTC	Senior A	9,300	9,100	A	9,225	36,425
C Maile	Olympus	Junior A	8,950	9,050	9,025	9,375	36,400
M Stolp	GTC	Senior A	9,400	8,750	8,725	9,500	36,375
M McBride	GTC	Junior A	9,475	9,050	8,700	9,050	36,275
A Boom	TGA	Senior A	9,650	8,300	8,700	9,500	36,150
B Makhatini	Olympus	Junior B	9,350	9,200	9,150	9,350	37,050

[Adapted from www.meetscoresonline.com]

Use TABLE 5 to answer the questions that follow.

5.1.1 Identify the team that achieved the highest score for the vault event. (2)

5.1.2 Determine the range of G Gilliland's scores. (2)

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5.1.3 Calculate the mean score for the bar event. (3)

5.1.4 Determine missing value **A**. (3)

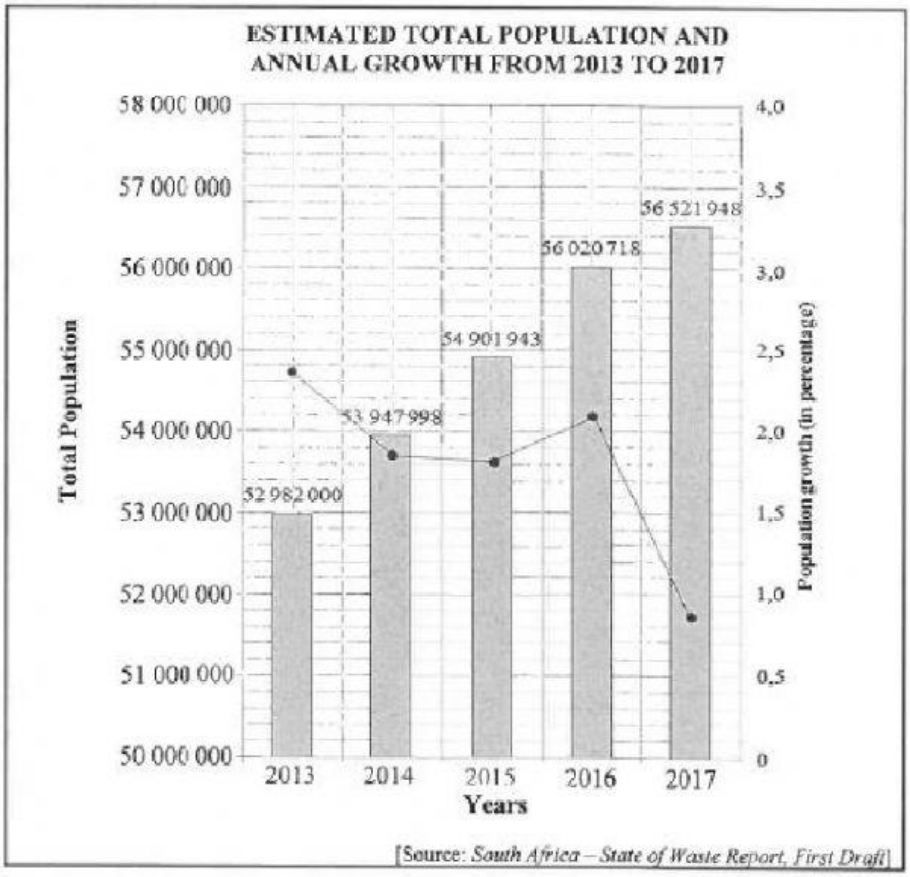
5.1.5 Write down the modal score for the total points scored. (2)

5.1.6 Determine, as a percentage, the probability of selecting a gymnast in the Junior division with a total score of more than 36,970. (3)

5.1.7 Calculate the value of quartile 2 for the floor event. (3)

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5.2 The graph below shows the estimated total population of South Africa and the annual population growth from 2013 to 2017.



5.2.1 Write down in words, and without the use of numbers, the population of South Africa in 2013. (2)

5.2.2 Determine, rounded to the nearest 10 000, the population increase from 2015 to 2016. (3)

5.2.3 Calculate the annual population growth (APG) for 2015.

Use the following formula:

$$\text{APG} = \frac{\text{current population - previous population}}{\text{previous population}} \times 100\%$$

(3)

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