

3.1.2 Bereken die radius van die leg.

3.1.3 Bereken, in centimeters, die totale hoogte (inclusief pot) van EEN kubusvormige ottoman.

(2)

**Rectangular and cubic shaped ottomans/  
Regthoekige en kubusvormige ottomans**

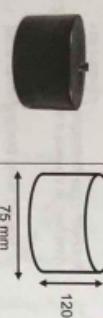
**Information/  
Inligting:**

50 cm  
120 cm  
50 cm



Dimensions/Afmetings:

Rectangular ottoman/  
Regthoekige ottoman  
Length/Lengte = 120 cm  
Width/Bredte = 50 cm  
Height/Hoogte = 50 cm  
Cubic-shaped ottomans/  
Kubusvormige ottomans  
Side/Sy = 50 cm  
Height/Hoogte = 50 cm



Dimensions of a leg/  
Afmetings van 'n poot

Diameter = 75 mm  
Total height = 120 mm  
Deursnee/Middlelyn = 75 mm  
Totale hoogte = 120 mm

[Bron: www.takesoek.com]

1 Ottoman: A piece of furniture like a large box with a soft top, used as a seat.

2 Upholsterer: Someone whose job it is to cover furniture with material.

3 Ottoman: A piece of furniture like a large box with a soft top, used as a seat.

2 Stoofieder: Iemand wie se werk dit is om meubels met materiaal oor te trek.

Gebruik die volgende hervat om die vrae wat volg, te beantwoord.

3.1 Determine the total number of legs for the ottomans John has to purchase.

3.1.1 Bepaal die totale aantal pote vir die ottomans wat John moet aankoop. (3)

The tree diagram below represents the choice and colour of the material to be used to cover the ottomans.

**Memo: 58**

3.1.2 Bereken die radius van die ottoman se poot.

3.1.3 Bereken, in sentimeter, die totale hoogte (die pota linge/suit), van EEN kubusvormige ottoman.

(2)

3.1.4 Bereken, in  $\text{cm}^2$ , die totale buiteoppervlakte van die sykante se oppervlakte van al drie ottomans wat gevervaar moet word.

Jy kan die volgende formules gebruik:

$$\begin{aligned}\text{Oppervlakte van 'n reghoek} &= \text{Hoogte} \times \text{Breedte} \\ \text{Oppervlakte van 'n vierkant} &= \text{Sy} \times \text{sy} \\ &= \text{side} \times \text{side}\end{aligned}\quad (5)$$

3.1.5 John bought a one-litre tin of luxurious silk paint to paint the side surfaces. The paint has a spread rate of 8  $\text{m}^2$  per litre.

3.1.5 John het 'n een literlik luxurios silkslaai gekoop om die sykante se oppervlakte te verf. Die verf het 'n spreidingskoers van 8  $\text{m}^2$  per liter.

Calculate, in millimetres, the amount of paint needed to paint ALL the ottomans with TWO coats of paint.



3.1.6 Die tin has an inner radius of 6.5 cm.

3.1.6 Bereken, in millimeter, die hoeveelheid verf wat nodig is om AL die ottomans met TWEE lae te verf. (4)

Bereken, in millimeter, die hoeveelheid verf wat nodig is om AL die ottomans met TWEE lae te verf. (4)

3.2 Calculate the height (in cm) of the paint in the tin, if 1 litre = 1 000  $\text{cm}^3$ .

You may use the following formula:

$$\text{Height} = \frac{\text{Volume}}{3.142 \times (\text{radius})^2}$$

3.2 The upholsterer can use the following materials to cover the tops of ALL the ottomans: synthetic leather (S), genuine leather (G) or canvas (C). The materials are available in the following colours:

3.1.1 Bepaal die totale aantal pote vir die ottomans wat John moet aankoop. (3)

Hieronder is 'n boomdiagram wat die keuse van kleur van die materiaal wat gebruik gaan word om die ottomans oor te trek, voorstel.

**Memo: 58; 59**



- 3.3.1 Given that 60 inches = 153.6 cm,  
complete:  
 $1 \text{ inch} = \dots \text{ cm}$

- 3.3.1 Gegee dat 60 duim = 153.6 cm,  
voltooi:  
 $1 \text{ duim} = \dots \text{ cm}$

- 3.3.2 Calculate, in cm, the perimeter of  
one large sheet of synthetic leather.

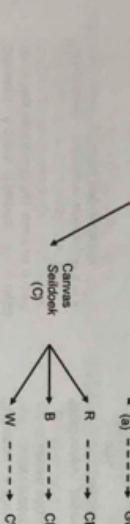
You may use the following formula:  
 $\text{Perimeter} = 2 \times (\text{length} + \text{width})$

[3]



- 3.3.2 Bereken, in cm, die omtrek van  
een groot vel sintetiese leer.  
Gebruik:  
 $\text{Omtrek} = 2 \times (\text{lengte} + \text{breedte})$

[3]



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Gebruik:  
 $\text{Omtrek} = 2 \times (\text{lengte} + \text{breedte})$

[3]

Use the information above to answer the  
questions that follow.

- 3.2.1 Write down missing items (a) and  
(b).

- 3.2.2 Determine (as a fraction in simplest  
form) the probability of NOT selecting  
red material.

- 3.2.2 Bepaal (as 'n breuk in die eenvoudigste vorm) die waarskynlikheid  
dat 'n vel sintetiese leer wat nie rooi materiaal nie.

(3)

- The map on the next page shows  
Cape Route 62.

Use the information to answer the  
questions that follow.

- 4.1 Peel and his friend, Roland, plan a  
camping trip using their motorcycles  
along Cape Route 62. It is a popular  
tourist route passing through the Western  
Cape and Eastern Cape provinces.

- 4.1 Peel en sy vriend, Roland, beplan 'n  
kampeertoer deur met hulle motorfietses  
op Kaapse Roete 62 te gaan. Dit is 'n  
gewilde toeriste-roete wat deur die  
Wes-Kaap- en Oos-Kaapprovinsies  
gaan.

- Die kaart op die volgende bladsy toon  
Kaapse Roete 62.

- Gebruik die infilgting om die vroe wat  
volg, te beantwoord.

- 4.1.1 Identify the road that must be  
travelled on between Tulbagh  
and Ceres.

- 4.1.1 Identifiseer die pad waarop tussen  
Tulbagh en Ceres gereis moet  
word.

- Gebruik die infilgting om die vroe wat  
volg, te beantwoord.

- 4.1.2 Name the type of scale shown on  
the map.

- 4.1.2 Noem die tipe skaal wat op die  
kaart getoon word.

- 4.1.3 Write down the general direction  
from Krysyna to Mossel Bay.

- 4.1.3 Skryf die algemene rigting vanaf  
Krysyna na Mosselbaai neer.

- 4.1.4 The total distance from Cape Town  
to Worcester, via Tulbagh, is

- 4.1.4 Die totale afstand vanaf Kaapstad  
na Worcester, via Tulbagh, is

- 210 km.

- 210 km.

- The table below indicates the actual  
distances between some of the  
towns on Cape Route 62.

- Die tabel hieronder dui die werkelike  
afstands tussen sommige van die  
dorppe op Kaapse Roete 62 aan.

- Actual distance between towns/  
Werklike afstands tussen dorpe

Cape Town to Paarl/Kaapstad na Paarl	62 km
Paarl to Wellington/Paarl na Wellington	13 km
Wellington to Tulbagh/Wellington na Tulbagh	A
Tulbagh to Worcester/Tulbagh na Worcester	82 km

[Adapted from www.routes2.co.za]  
[Panigpas uit www.routes2.co.za]

[From: www.lastroute62.net]

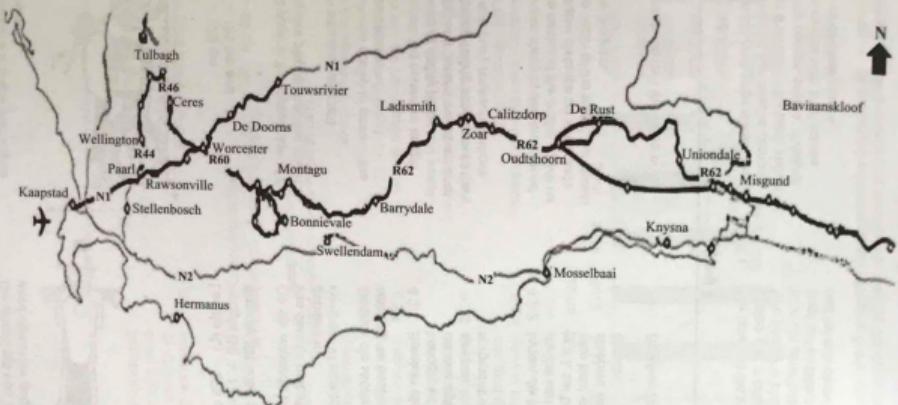
Use the above information to answer the  
questions that follow.

Memo: 59

- 3.2.1 Use the above information to answer the  
questions that follow.

Determine missing value A

Memo: 58



Skaal = 1 : 2 742 857

SLEUTEL: Lughawe



#### 4.1.5 Peet wants to visit his cousin, who lives along Cape Route 62.

He uses the following directions to his cousin's home:

- \* Peet takes the R60 from Worcester to Montagu.

\* From Montagu he proceeds to Barrydale.

- \* From Barrydale he takes the R62 to the next town where his cousin lives.

Study the directions and then write down the name of the town where his cousin lives.

#### 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.

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#### 4.1.5 Peet wil vir sy niggie, wat langs Route 62 woon, gaan kuier.

Hy gebruik die volgende aanwysings na sy niggie se huis:

- \* Peet neem die R60 vanaf Worcester na Montagu.

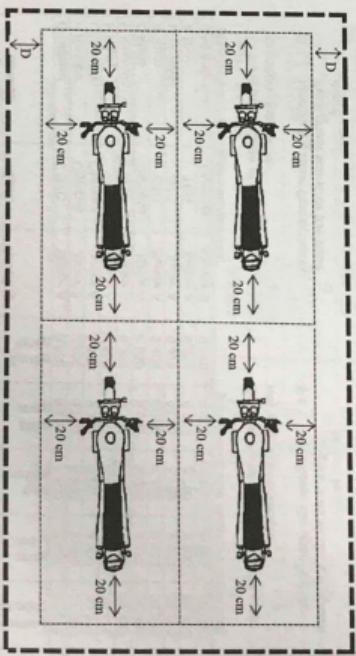
\* Vanaf Montagu reis hy verder na Barrydale.

\* Vanaf Barrydale neem hy die R62 na die volgende dorp waar sy niggie woon.

Bestudeer die aanwysings en skryf dan die naam van die dorp waar sy niggie woon.

(2)

4.2 Nog vier vriende gaan by Peet en Roland aansluit. Hulle sal per motor reis en 'n sleepwa gebrauk om hulle motorfesse te vervoer. Hulle het 'n 20 cm-spasse om al vier kante van die motorfesse nodig om die motorfesse teen skade te beskerm.



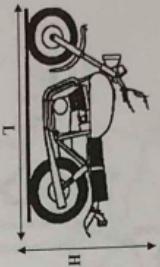
Key:

Outer dimensions of the trailer with a length of 550 cm and a width of 280 cm.

Sleutel:

Buite-affmetings van die sleepwa met 'n lengte van 550 cm en 'n breedte van 280 cm.

The dimensions of a single motorcycle are given below.



Length (**L**) = 229 cm  
Height (**H**) = 125 cm and  
Width (**B**) = 86 cm

On the next page is the layout plan of the four motorcycles placed onto the trailer.

[Adapted from [www.covercraft.com](http://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.**

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Gebruik die sketse hierbo om die vrae wat volg, te beantwoord.

**4.2.1 Bereken die minimum lengte wat benodig word om twee motorfietsse, die een agter die ander een, op die sleepwa ter plase, deur die voor-sorgmaatreels hierbo in ag te neem.**

(3)

**4.2.2 If the two motorcycles are placed in the centre of his trailer, **D** will be**

**of the width of the trailer, as shown in the diagram.**

**C Calculate (in cm) the value of **D**.**

**4.2.2 Indien die twee motorfietsse in die middel van die sleepwa geleë word, sal **D** die gelijke afstand aan elke kant van die breedte van die sleepwa wees, soos in die diagram getoon.**

**Bereken (in cm) die waarde van **D**.**

[17]

**5.1 The table on the next page 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.**

**Question 5**

**Vraag 5**

**5.1 Die tabel op die volgende bladsy toon die uitslae van 'n onlangsge ginnastiekkompetisie wat in 'n skool gehou is. Die tabel toon die ginnaste se name, spanne, afdeelings en verskillende items met totale punte wat vir die desimate piekke gegee word.**

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Die afmetings van 'n enkele motorfiets word hieronder gegee.

**F1**

### Results of a gymnastics competition/ Uitslae van 'n ginnastiekkompetisie

Events/itemen

Gymnast/ Ginnas	Team/ Span	Division/ Afdeling	Vault/ Spring	Bars/ Brug	Beam/ Balk	Floor/ Vloer	Total score/ Totale punt
G. Gilliland	GTC	Senior A	9.550	9.100	9.400	9.625	37.675
H. Radcliffe	Olympus	Junior B	9.450	9.250	8.900	9.400	37.000
L. Gummelde	Olympus	Junior A	9.375	9.300	8.700	9.500	36.975
S. Rody	TGA	Senior A	9.500	8.650	8.925	9.350	36.425
H. Khamalo	GTC	Senior A	9.300	9.100	9.225	9.225	36.425
C. Malie	Olympus	Junior A	9.050	9.050	9.025	9.375	36.400
M. Stolt	GTC	Senior A	9.400	8.750	8.725	9.500	36.375
M. McFadie	TGA	Junior A	9.650	8.050	8.700	9.050	36.275
A. Boom	Olympus	Senior A	9.650	8.300	8.700	9.500	36.150
B. Makhatlani	Olympus	Junior B	9.350	9.200	9.150	9.350	37.000

[Adapted from [www.meetscoreonline.com](http://www.meetscoreonline.com)]  
[Aangesien uit [www.meetscoreonline.com](http://www.meetscoreonline.com)]

Use the table above to answer the questions that follow.

Use the table above to answer the questions that follow.

Gebruik die tabel hierbo om die vrae wat volg, te beantwoord.

**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)

**5.1.3 Calculate the mean score for the bars 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.**

(2)

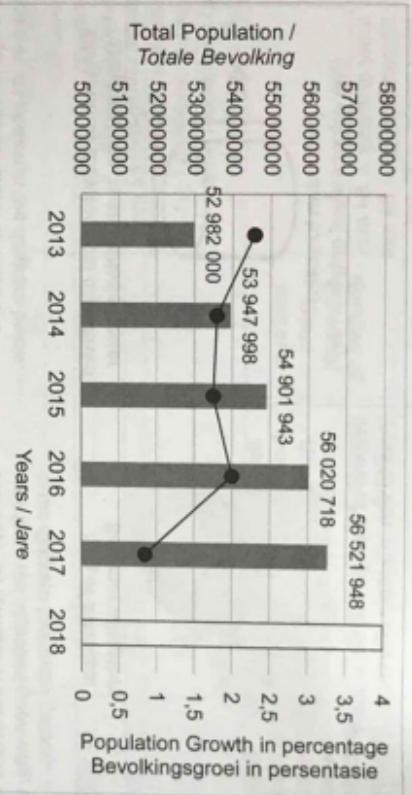
**5.1.7 Calculate the value of quartile 2 for the floor event.**

(3)

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

**5.2 Die grafiek hieronder toon die geskakte totale bevolking van Suid-Afrika en die jaarlike bevolkingsgroei van 2013 tot 2017.**

**Estimated total population and percentage annual growth from 2013 to 2017!**



5.2.1 Write down in words the population of South Africa in 2013

5.2.1 Skryf in woorde die bevolking van Suid-Afrika in 2013 neer. (2)

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

5.2.2 Bepaal, tot die naaste 10 000 van 2015 tot 2016. (3)

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

5.2.3 Bereken die persentasie jaarliese bevolkingsgroei (JBG) vir 2015.

Use the following formula:

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

$$\text{JBG} = \frac{\text{huidige bevolking} - \text{vorige bevolking}}{\text{vorige bevolking}} \times 100\% \quad (3)$$

5.2.4 If the 2018 population was 57 725 606 and the population growth was 2.13%, complete the graph above for 2018.

5.2.4 Indien die 2018-bevolking 57 725 606 was en die bevolkingsgroei 2.13% was, voltooi die bestaande grafiek vir 2018. (4)

[30]  
[150]