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南僑中學

**NAN CHIAU HIGH SCHOOL**  
**MID-YEAR EXAMINATION 2019**  
**SECONDARY FOUR EXPRESS**

For Marker's Use

**MATHEMATICS**

**4048/01**

**Paper 1**

**7 May 2019, Tuesday**

Candidates answer on the Question Paper.

**2 hours**

**READ THESE INSTRUCTIONS FIRST**

Write your name, class and index number on all the work you hand in.

Write in dark blue or black pen.

You may use a 2B pencil for any diagrams or graphs.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

If working is needed for any question it must be shown with the answer.

Omission of essential working will result in loss of marks.

The use of an approved calculator is expected, where appropriate.

If the degree of accuracy is not specified in the question, and if the answer is not exact, give the answer to three significant figures. Give answers in degrees to one decimal place.

For  $\pi$ , use either your calculator value or 3.142, unless the question requires the answer in terms of  $\pi$ .

The number of marks is given in brackets [ ] at the end of each question or part question.

The total marks for this paper is 80.

**Mathematical Formulae***Compound interest*

$$\text{Total amount} = P \left( 1 + \frac{r}{100} \right)^n$$

*Mensuration*

$$\text{Curved surface area of a cone} = \pi r l$$

$$\text{Surface area of a sphere} = 4\pi r^2$$

$$\text{Volume of a cone} = \frac{1}{3} \pi r^2 h$$

$$\text{Volume of a sphere} = \frac{4}{3} \pi r^3$$

$$\text{Area of triangle } ABC = \frac{1}{2} ab \sin C$$

$$\text{Arc length} = r\theta, \text{ where } \theta \text{ is in radians}$$

$$\text{Sector area} = \frac{1}{2} r^2 \theta, \text{ where } \theta \text{ is in radians}$$

*Trigonometry*

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$a^2 = b^2 + c^2 - 2bc \cos A$$

*Statistics*

$$\text{Mean} = \frac{\Sigma fx}{\Sigma f}$$

$$\text{Standard deviation} = \sqrt{\frac{\Sigma fx^2}{\Sigma f} - \left( \frac{\Sigma fx}{\Sigma f} \right)^2}$$

Answer all the questions.

- 1 Given that  $64^k \times 16 = 1$ , find the value of  $k$ .

Answer  $k = \dots\dots\dots$  [1]

---

- 2 The stem-and-leaf diagram shows the Science quiz marks scored by a group of 15 students.

0	7							
1	2							
2	4	$X$						
3	0	4	5	6				
4	3	5	6	6	6	7	9	

Key: 0 | 7 represents 7 marks

Given that the median mark is twice the interquartile range, find the value of  $X$ .

Answer  $X = \dots\dots\dots$  [2]

---

- 3 The LCM and HCF of  $p$  and  $q$  are 60 and 6 respectively. Given that both  $p$  and  $q$  are between 6 and 60 and  $p < q$ , find the value of  $p$  and of  $q$ .

Answer  $p = \dots\dots\dots, q = \dots\dots\dots$  [2]

---

- 4  $A, B$  and  $C$  are three non-empty sets satisfying the following conditions:

$$A \subset B, A \cap C \neq \emptyset, A \not\subset C \text{ and } C \not\subset B.$$

Draw a clearly labelled Venn diagram to illustrate the above information.

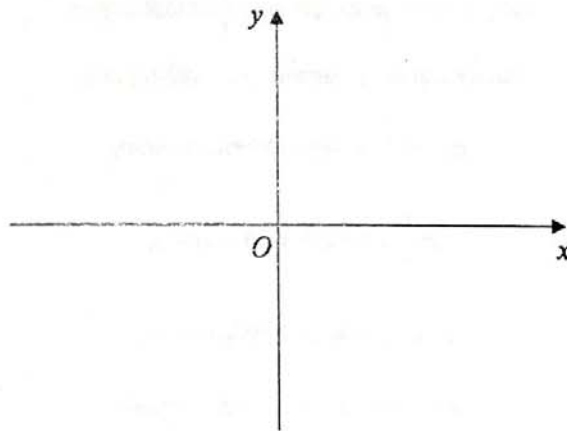
*Answer*

[2]

- 5 Sketch the graph of  $y = (x + 2)(4 - x)$  on the axes below.

Indicate clearly the  $x$ -intercepts,  $y$ -intercept and the coordinates of the turning point.

*Answer*



[2]

- 6 Tide detergent is having its monthly promotion at MAMA Supermarket.



**\$1.79 NETT**

**TIDE Travel Size**  
Turbo Clean Liquid  
Laundry - Free & Gentle  
Volume: 10 oz



**ANY 2 @ \$17.90**

**TIDE**  
Turbo Clean Liquid  
Laundry - Free & Gentle  
Volume: 50 oz



**OFFER \$26.85**

**TIDE**  
Turbo Clean Liquid  
Laundry - Free & Gentle  
Volume: 150 oz

Show that the cost of the detergent is directly proportional to its volume.

*Answer*

[2]

- 7 The employees of a company are offered a wage increment which is calculated according to one of the following schemes:

*Scheme A:* An increment of 5% of their present wages.

*Scheme B:* An increment of 3% of their present wages plus additional \$8 per week.

Employees earning \$ $x$  per week at present will receive higher increment if they have chosen *Scheme A*. Find the range of values of  $x$ .

*Answer* ..... [2]

8 Solve  $\frac{1}{x} - \frac{3}{2x+1} = 1$ .

*Answer*  $x = \dots\dots\dots$  [3]

---

9 Rearrange  $y = \sqrt{\frac{2x+y}{3x-5}}$  to express  $x$  in terms of  $y$ .

*Answer*  $x = \dots\dots\dots$  [3]

---

- 10 Mr Lim invested \$10 000 in a fund that pays a compound interest of 2.75% per annum, compounded quarterly. Find the interest earned, correct to the nearest dollar, at the end of 3 years.

Answer \$..... [3]

- 11 The diagram shows a container in the shape of a prism with a triangular cross-section. Water is poured into the container until the depth of water is  $\frac{3}{5}$  the height of the container.



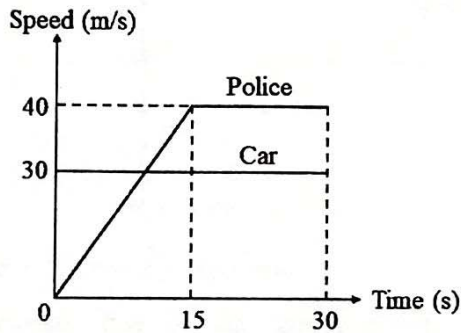
If the volume of the container is 200 ml, find the volume of water in the container.

Answer ..... ml [3]

12 (a) Convert 80 km/h to m/s.

Answer ..... m/s [1]

(b) In Marina Coastal Expressway (MCE), the speed limit of all vehicles is 80 km/h. A car is travelling at a constant speed of 30 m/s and passes a stationary traffic police motorcycle. The traffic police immediately gives chase, accelerating uniformly to reach a maximum speed of 40 m/s and continues with this speed until it overtakes the car.

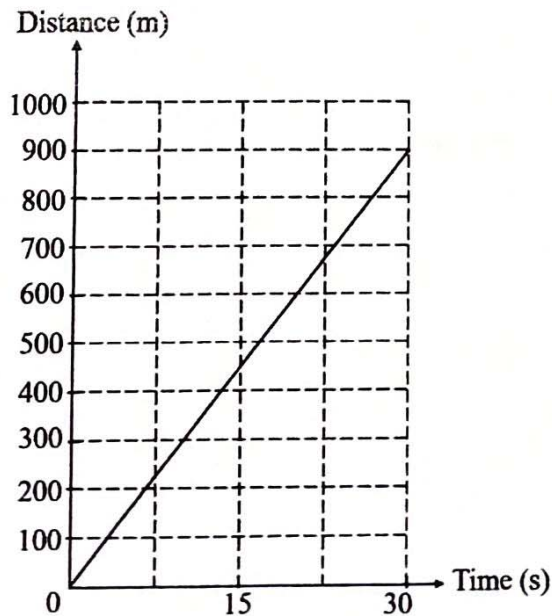


(i) Calculate the acceleration of the police motorcycle.

Answer ..... m/s<sup>2</sup> [1]

(ii) In the axes below, draw the distance–time graph for the police motorcycle for the first 30 seconds. The distance–time graph for the car has been drawn for you.

Answer



[1]

- 13  $PQRS$  is a parallelogram.

$$\overrightarrow{PQ} = \begin{pmatrix} -3 \\ 4 \end{pmatrix}, \overrightarrow{PS} = \begin{pmatrix} 12 \\ 5 \end{pmatrix}.$$

Calculate  $|\overrightarrow{PR}|$ .

Answer ..... units [3]

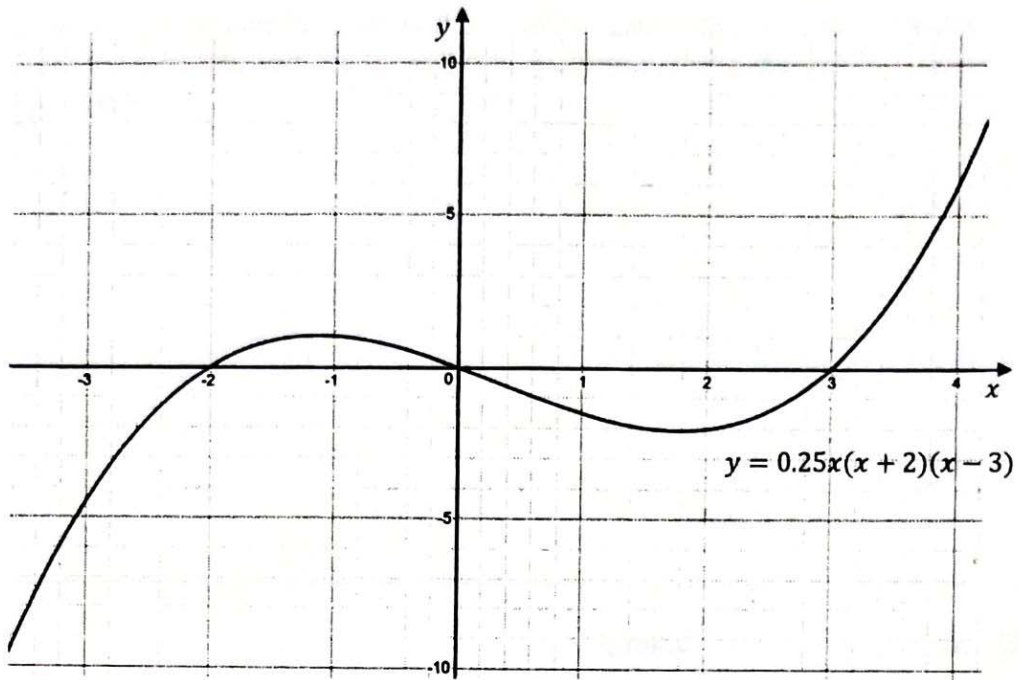
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- 14 By observing the pattern in the last digit of  $3^n$  and of  $8^n$ , where  $n > 0$ , find the last digit in the subtraction  $3^{31} - 8^{16}$ .

Answer ..... [3]

---

15



The graph of  $y = 0.25x(x + 2)(x - 3)$  was drawn.

By adding a suitable straight line on the graph above, solve the equation  $x(x + 2)(x - 3) = 6x$ .

Answer  $x = \dots\dots\dots$  [3]

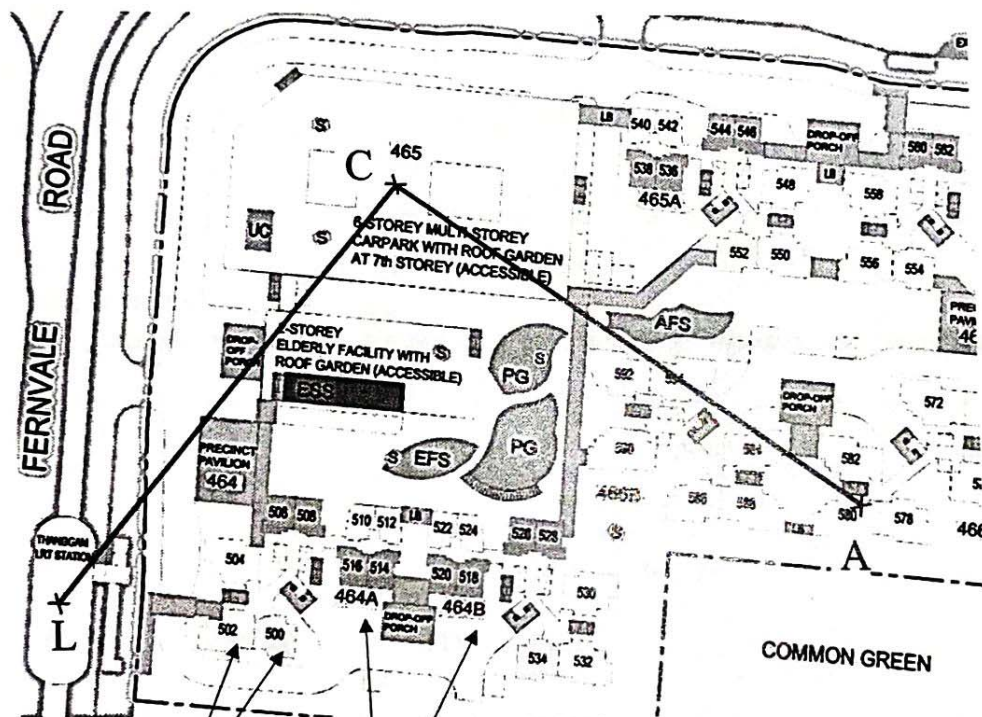
16 The diagram below shows part of a site map of the newly launched Build-To-Order (BTO) flats at Fernvale Road.

Andy and his parents applied for this BTO project under the Multi-Generation Priority Scheme which allows married children to make a joint application with their parents for two units in the same project.

Their application has gotten them a good queue number in the selection of units. Andy has chosen the unit 580, marked as *A*.

State the unit which Andy's parents should choose if they wish to satisfy the following criteria:

- equidistant from the multi storey carpark, *C*, and the LRT station, *L*, and
- equidistant from the line *LC* and *AC*.



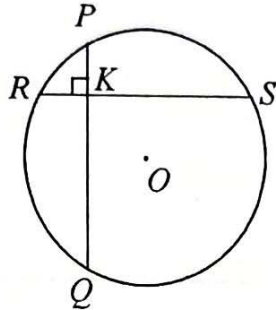
Source: [http://esales.hdb.gov.sg/bp25/launch/19feb/bto/19FEBBTOSK\\_page\\_6280/\\$file/map-plan.html#site-plan](http://esales.hdb.gov.sg/bp25/launch/19feb/bto/19FEBBTOSK_page_6280/$file/map-plan.html#site-plan)

Unit numbers 502 and 500  
i.e. #02-502,  
#02-500

Block numbers 464A and 464B  
i.e. Blk 464A,  
Blk 464B

Answer ..... [3]

- 17 In the diagram,  $O$  is the centre of the circle with radius 13 cm.  $PQ$  and  $RS$  are perpendicular equal chords of length 24 cm and intersecting at  $K$ .



Calculate the length of  $OK$ .  
Show your workings and give reasons.

Answer ..... cm [3]

---

- 18 For a  $n$ -sided polygon, the largest interior angle is  $100^\circ$  and the smallest interior angle is  $20^\circ$ . Find the value(s) of  $n$ .

Answer  $n = \dots\dots\dots$  [4]

---

- 19 (a) Factorise  $(2x - 7)(x - 2) - 9$  completely.

Answer  $\dots\dots\dots$  [2]

- (b) Hence, solve  $2(y - 1)^2 - 11y + 16 = 0$ .

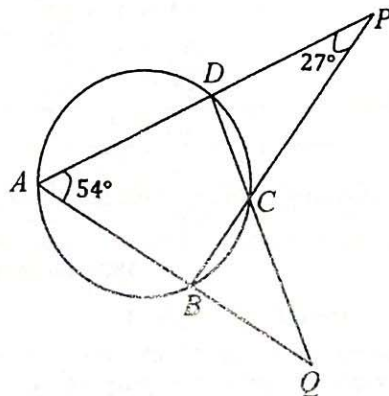
Answer  $\dots\dots\dots$  [2]

---

- 20 When  $x + 8$  is divided by  $y$ , the result is 4. When  $x$  is divided by  $y$ , its quotient is 2 and the remainder is 6. By forming two equations in terms of  $x$  and of  $y$ , solve for  $x$  and  $y$ .

Answer  $x = \dots\dots\dots, y = \dots\dots\dots$  [4]

- 21 In the diagram,  $A, B, C$  and  $D$  lie on the circumference of the circle.  $ADP, ABQ, BCP$  and  $DCQ$  are straight lines.  $\angle BAD = 54^\circ$  and  $\angle CPD = 27^\circ$ .

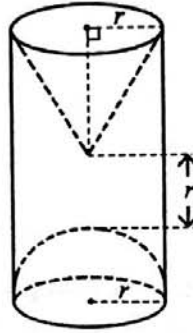


Find  $\angle AQD$ .

Show your working and give reasons.

Answer  $\angle AQD = \dots\dots\dots^\circ$  [4]

- 22 A carpenter wants to create a wooden toy for his son. He removed a right-angled cone and a hemisphere from a uniform cylindrical wood. The radius of the base of the cone and hemisphere are  $r$  cm. The distance between the top of the hemisphere and the vertex of the cone is also  $r$  cm.

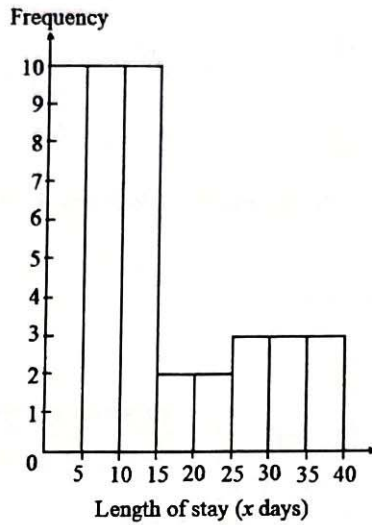


Given that the curved surface area of the cone is equal to the curved surface area of the hemisphere, work out the volume of the toy, in terms of  $r$ .

Answer .....cm<sup>3</sup> [4]

---

- 23 The histogram illustrates the length of stay (in days) in Australia for a group of Singaporean tourists last year.



- (a) Complete the following table.

*Answer*

Length of stay (days)	Numbers of tourists
$0 < x \leq 5$	
$5 < x \leq 10$	
$10 < x \leq 15$	
$15 < x \leq 20$	
$20 < x \leq 25$	
$25 < x \leq 30$	
$30 < x \leq 35$	
$35 < x \leq 40$	

[1]

- (b) Calculate the fraction of the Singaporean tourists who stayed in Australia longer than 15 days.

*Answer* ..... [1]

- (c) Calculate an estimate for the mean and standard deviation of the length of stay.

*Answer*

Mean = ..... days

Standard deviation = ..... days [2]

- 24 (a) Explain why  $(x - 2)^4(x^2 - 4x + 4)$  is both a perfect square and a perfect cube when  $x$  is an integer.

*Answer*

.....

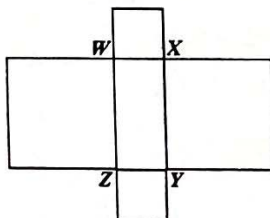
.....

.....

.....

[2]

- (b) The figure is made up of 2 big squares, 2 small squares and a rectangle  $WXYZ$ . The perimeter of rectangle  $WXYZ$  is 20 cm. The total area of all the four squares is  $140 \text{ cm}^2$ .



Find the area of  $WXYZ$ .

*Answer* .....  $\text{cm}^2$  [4]

- 25 Mrs Tan sells three different types of cakes. The table below shows the number of cakes bought by Childcare Centre *A* and *B* for Children's Day Celebration.

	Sponge	Chocolate	Cheese
Childcare Centre <i>A</i>	32	27	20
Childcare Centre <i>B</i>	44	45	38

- (a) Represent this information in a  $2 \times 3$  matrix, **P**.

$$\text{Answer } \mathbf{P} = \begin{pmatrix} & & \\ & & \end{pmatrix} \quad [1]$$

- (b) The selling price for each sponge cake, chocolate cake and cheese cake is \$3.20, \$4.50 and \$4.80 respectively.

The information can be represented as  $\mathbf{Q} = \begin{pmatrix} 3.2 \\ 4.5 \\ 4.8 \end{pmatrix}$ .

Evaluate the matrix  $\mathbf{PQ}$ .

$$\text{Answer } \mathbf{PQ} = \begin{pmatrix} & \\ & \end{pmatrix} \quad [1]$$

- (c) Mrs Tan has a special promotion for cakes order for Children's Day celebration.

- Get the second sponge cake at half price.
- Buy three chocolate cakes for the price of two.
- Cheese cakes 1-for-1!

Write down a  $3 \times 3$  matrix, **R**, such that  $\mathbf{RQ}$  will give the discounted price for each type of cakes sold to Childcare Centre *A* and *B*.

$$\text{Answer } \mathbf{R} = \begin{pmatrix} & & \\ & & \\ & & \end{pmatrix} \quad [2]$$

25 (d) Evaluate matrix  $S = PRQ$ .

*Answer*  $S = \left( \begin{array}{cc} & \\ & \end{array} \right)$  [2]

(e) Describe what the elements in matrix  $S$  represents.

*Answer*

.....

.....

.....

[1]

– End –



Name: \_\_\_\_\_ Register Number: \_\_\_\_\_ Class: \_\_\_\_\_



南僑中學

**NAN CHIAU HIGH SCHOOL**  
**MID-YEAR EXAMINATION 2019**  
**SECONDARY FOUR EXPRESS**

For Marker's Use

**MATHEMATICS**

4048/02

Paper 2

9 May 2019, Thursday

Candidates answer on the Question Paper.

2 hours 30 minutes

**READ THESE INSTRUCTIONS FIRST**

Write your name, class and index number on all the work you hand in.  
Write in dark blue or black pen.  
You may use a 2B pencil for any diagrams or graphs.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer all questions.  
If working is needed for any question it must be shown with the answer.  
Omission of essential working will result in loss of marks.  
The use of an approved scientific calculator is expected, where appropriate.  
You are reminded of the need for clear presentation in your answers.

If the degree of accuracy is not specified in the question, and if the answer is not exact, give the answer to three significant figures. Give answers in degrees to one decimal place.  
For  $\pi$ , use either your calculator value or 3.142, unless the question requires the answer in terms of  $\pi$ .

The number of marks is given in brackets [ ] at the end of each question or part question.  
The total marks for this paper is 100.

### **Mathematical Formulae**

#### **Compound interest**

$$\text{Total amount} = P \left( 1 + \frac{r}{100} \right)^n$$

#### **Mensuration**

$$\text{Curved surface area of a cone} = \pi r l$$

$$\text{Surface area of a sphere} = 4\pi r^2$$

$$\text{Volume of a cone} = \frac{1}{3} \pi r^2 h$$

$$\text{Volume of a sphere} = \frac{4}{3} \pi r^3$$

$$\text{Area of triangle } ABC = \frac{1}{2} ab \sin C$$

$$\text{Arc length} = r\theta, \text{ where } \theta \text{ is in radians}$$

$$\text{Sector area} = \frac{1}{2} r^2 \theta, \text{ where } \theta \text{ is in radians}$$

#### **Trigonometry**

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$a^2 = b^2 + c^2 - 2bc \cos A$$

#### **Statistics**

$$\text{Mean} = \frac{\sum fx}{\sum f}$$

$$\text{Standard deviation} = \sqrt{\frac{\sum fx^2}{\sum f} - \left( \frac{\sum fx}{\sum f} \right)^2}$$

1. (a) Simplify  $\frac{4b^3}{3a} \div \frac{(-4ab^3)^2}{2a^{-4}b^2}$ . Give your answer in positive indices. [2]

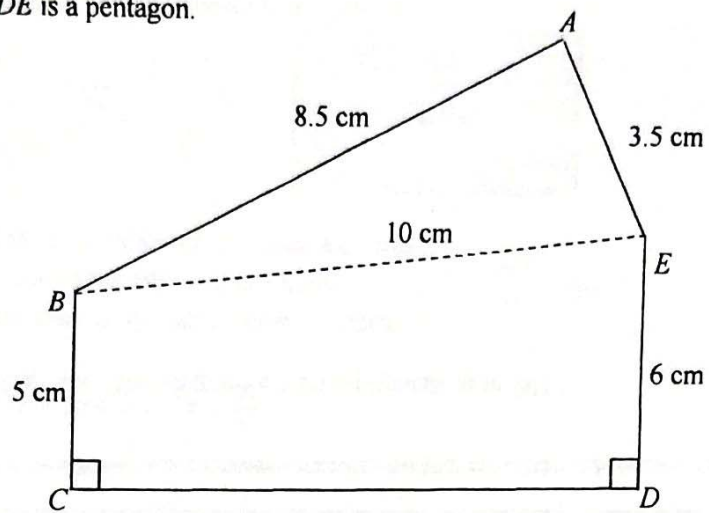
(b) Factorise  $14xb + 3ay - 2xy - 21ab$  completely. [2]

(c) Solve the inequality  $\frac{x}{5} < \frac{x+2}{3} \leq \frac{3-2x}{4}$ . [3]

(d) Simplify  $\frac{2x(1-6x)}{4x^2-1} - \frac{2}{2x+1}$  [4]

- (e) Express  $2x^2 + 6x - 15$  in the form  $a(x + b)^2 + c$ , where  $a$ ,  $b$  and  $c$  are constants.  
Hence, solve the equation  $2x^2 + 6x - 15 = 0$ , giving your answers correct to four decimal places. [4]

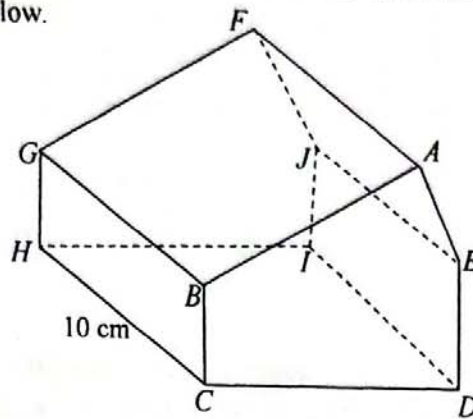
2.  $ABCDE$  is a pentagon.



- (a) Calculate the area of the pentagon  $ABCDE$ .

[5]

- (b) The pentagon  $ABCDE$  is a cross-section of a prism which is a model of a house as shown below.



- (i) Calculate the total surface area of the model, including the base. [2]

- (ii) Calculate the angle of depression of  $H$  from  $E$ . [3]

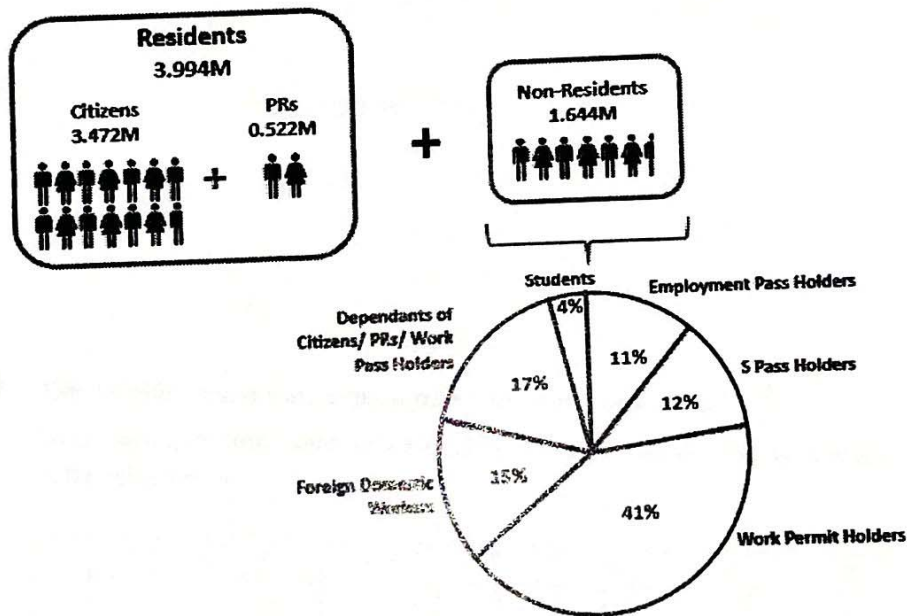
3. There was a newspaper article on Singapore's population published in 2018.

**Singapore's population grows slightly to 5.638 million, with non-resident numbers stable.**

Singapore's population rose 0.5 percent to 5.638 million from 2017 to 2018.

The slight increase over the past year was due to stable growth in citizen population, which rose 1 percent to 3.472 million citizens as of June 2018.

The 1 percent growth in citizens was due to citizen births and immigration.



Source: <https://www.channelnewsasia.com/news/singapore/singapore-s-population-grows-slightly-to-5-64m-with-non-resident-10763132>

- (a) Calculate the Singapore's total population in 2017.

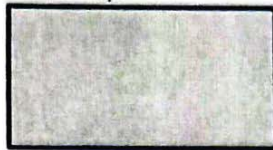
[2]

(b) Express the number of Foreign Domestic Workers as a percentage of the Singapore's total population in 2018. [2]

(c) Based on the information shown in this article, do you agree that Singapore's total population will reach 6.3 million by 2030? Support your answer with appropriate workings and state an assumption that you have made in your calculation. [3]

(d) State one aspect of the diagram that may be misleading and explain how this may lead to a misinterpretation of information. [2]

4. The diagram shows a rectangular table top.



$x$  m

The area of the table top is 5 square metres.

The length of the table top is  $x$  metres.

The perimeter of the table top is  $y$  metres.

- (a) Show that  $y = 2x + \frac{10}{x}$ . [2]

- (b) The variables  $x$  and  $y$  are connected by the equation  $y = 2x + \frac{10}{x}$ .  
Some corresponding values of  $x$  and  $y$ , correct to one decimal place, are given in the table below.

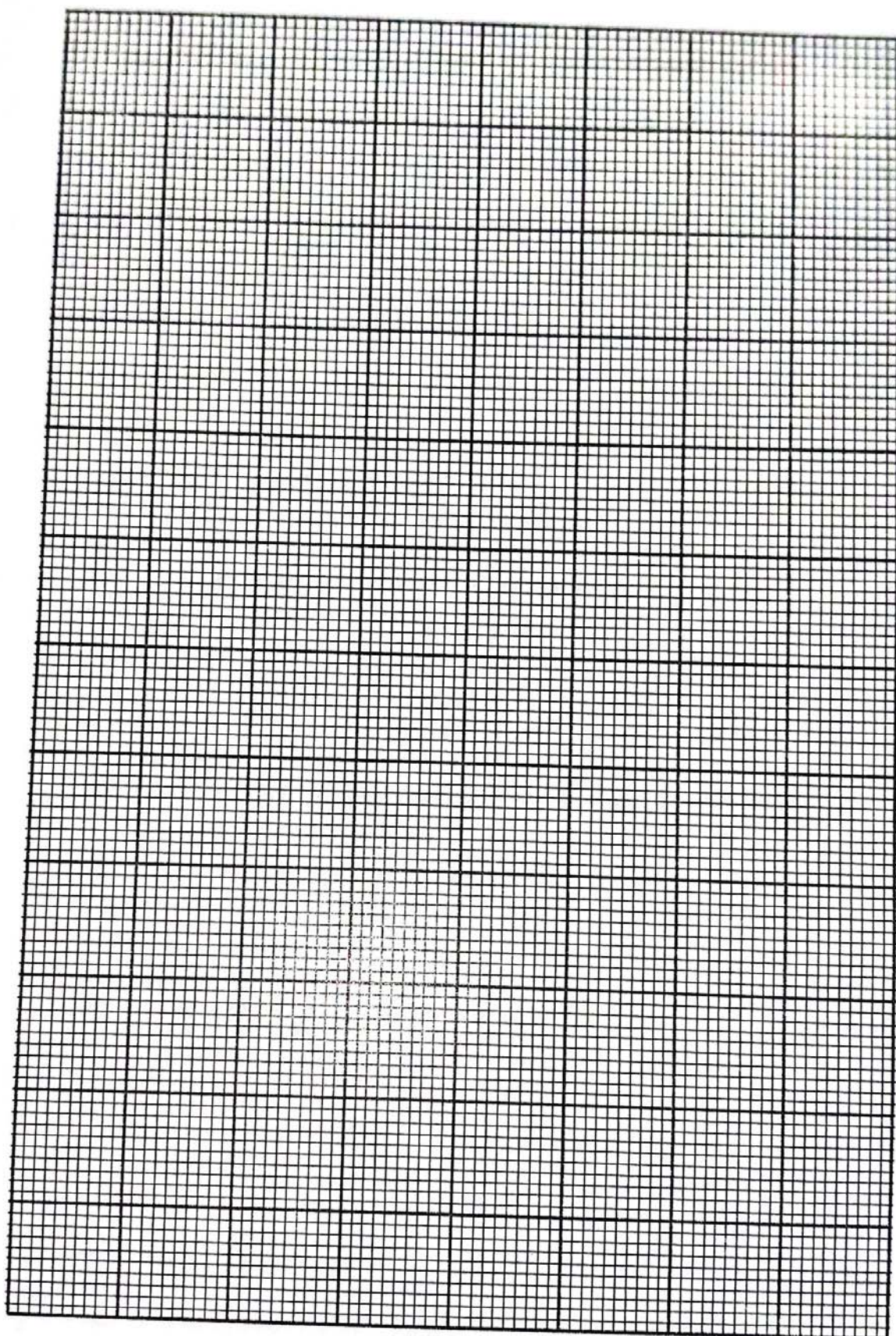
$x$	0.5	1	1.5	2	4	6	8
$y$	$p$	12	$q$	9	10.5	13.7	17.3

- (i) Find the value of  $p$  and of  $q$ . [1]

- (ii) Using a scale of 1 cm to represent 1 m, draw a horizontal  $x$ -axis for  $0 \leq x \leq 8$ .

Using a scale of 1 cm to represent 1 m, draw a vertical  $y$ -axis for  $0 \leq y \leq 22$ .

On your axes, plot the points given in the table and join them with a smooth curve. [3]



(iii) Use your graph to find the length of the table top if the perimeter of the table top is 16 m. [2]

(iv) By drawing a suitable straight line, find the x coordinate of the point at which the gradient of the curve is  $\frac{1}{3}$ . [2]

5. Given equation of a line  $L$  is  $3x - 2y = 8$ .

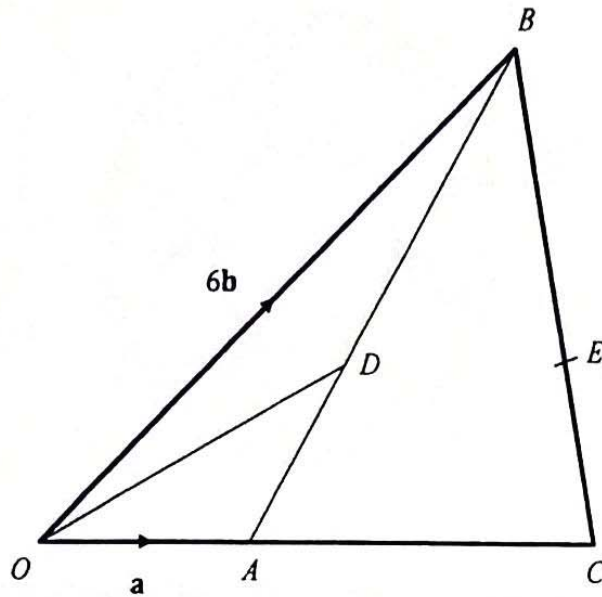
(a) State the gradient of line  $L$ . [1]

(b) If  $P(k, -2)$  is a point on the line  $L$ , find the value of  $k$ . [1]

(c) Find the equation of another line that is parallel to the  $x$ -axis and passes through  $P$ . [1]

(d) Calculate the perpendicular distance from the origin,  $O$ , to the line  $L$ . [4]

6.



In the diagram,  $\overrightarrow{OA} = \mathbf{a}$ ,  $\overrightarrow{OB} = 6\mathbf{b}$  and  $\overrightarrow{OA} = \frac{1}{3}\overrightarrow{OC}$ .

$D$  is a point on  $AB$  such that  $3\overrightarrow{AD} = 2\overrightarrow{DB}$  and  $E$  is a point on  $BC$  such that  $\overrightarrow{CE} : \overrightarrow{EB} = 4 : 5$ .

(a) Express, as simply as possible, in terms of  $\mathbf{a}$  and  $\mathbf{b}$ ,

(i)  $\overrightarrow{BA}$ , [1]

(ii)  $\overrightarrow{OD}$ , [1]

(iii)  $\overrightarrow{CE}$ , [1]

(iv)  $\overrightarrow{AE}$ . [2]

(b) Write down the relationship between  $OD$  and  $AE$ . Explain your answer. [2]



(c) Find the ratio of

(i) area of triangle  $CAE$  : area of triangle  $AOD$  , [2]

(ii) area of triangle  $CAE$  : area of triangle  $AOB$  . [2]

7. (a) There are two boxes of sweets containing toffees and chocolates.  
Box A contains 8 toffees and 4 chocolates, whereas box B contains 7 toffees and 3 chocolates.

Jolin loves chocolates.

One of the boxes is chosen at random and a sweet is taken out.

If she gets a chocolate, she will consume it.

If she did not get a chocolate from the first selection, she will place the sweet into the other box and she will select again from the other box.

Jolin limits herself to two selections.

Find, as a fraction in its simplest form, the probability that

- (i) Jolin will have her favourite chocolate from the first selection, [3]

- (ii) Jolin will have her favourite chocolate. [3]

- (b) Your friend, Kenton gives you a chance to win \$1000 by playing a game of “Guess the number”. There are two options of the game that he allows you to choose.

Option A

He uses a random number generator to choose a number from 1 to 8.

If you guess it correctly, you win.

Option B

You flip a fair coin.

If the coin lands on head, Kenton will roll a fair 6-sided die. If you manage to guess what it rolled, you win.

If the coin lands on tail, Kenton will use a random number generator to choose a random number from 1 to 8. If you guess the number correctly, you win.

Which option will you choose? Explain your answer.

[3]

8.

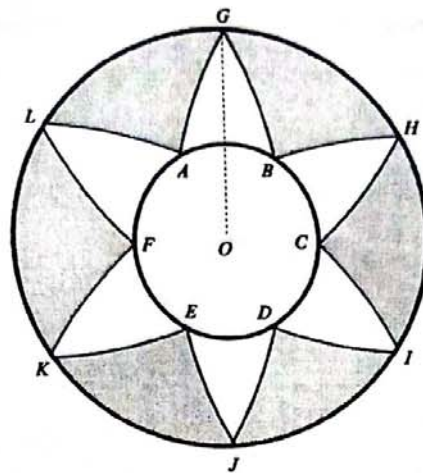


Figure 1

Figure 1 shows a dreamcatcher-inspired ornament which is made up of wire. The ornament consists of an inner circle  $ABCDEF$  and an outer circle  $GHIJKL$ , both with centre  $O$ , and 6 identical “petal” designs such as  $AGB$  and  $BHC$ .

Team Hō‘ola will be making these ornaments to raise funds for their Voluntary Welfare Organisation.

To estimate the amount of wire to be purchased, Head of Fundraising team, Janice modelled the following:

- The arc  $AG$  is an arc of another circle with centre  $X$ , radius 18 cm and  $\angle AXG = \frac{\pi}{6}$  radians.

This information is illustrated in Figure 2.

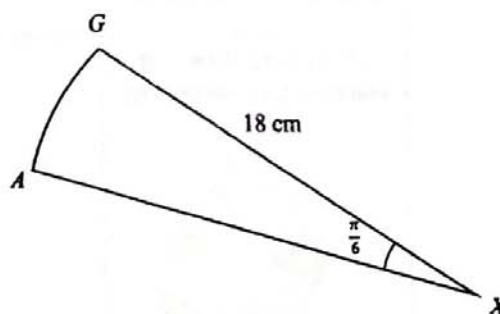


Figure 2

- A regular hexagon forms within the inner circle  $ABCDEF$  with  $OB = 5$  cm.  
This information is illustrated in Figure 3.

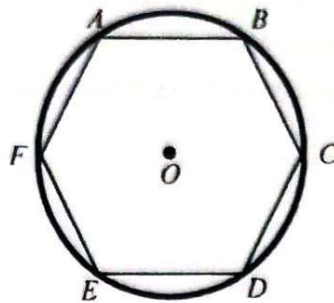


Figure 3

- (a) Show that the radius of the outer circle is 13.31 cm, correct to 2 decimal places. [6]

- (b) Team Hō'ola decided to make 50 dreamcatcher-inspired ornaments and Janice chanced upon the following promotion.



What is the estimated cost to make these ornaments?

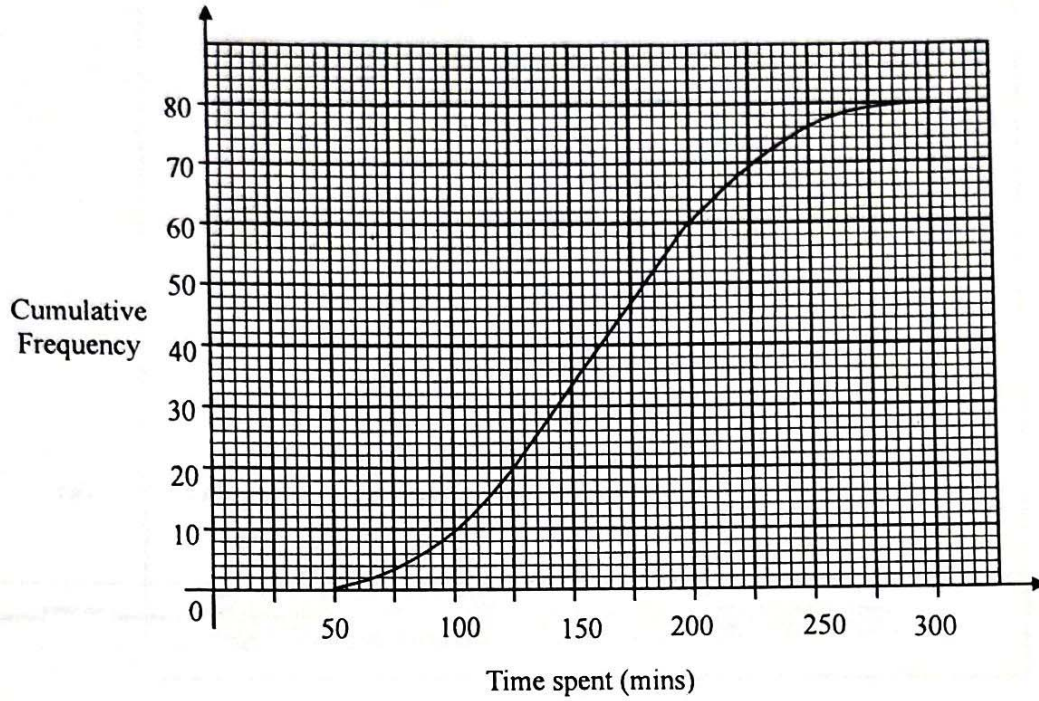
[5]

(c) Find the area of the shaded region as shown in Figure 1.

[5]



9. (a) The cumulative frequency curve below shows the time spent in minutes by a group of 80 teenagers on Instagram (a social media platform) on a particular day.



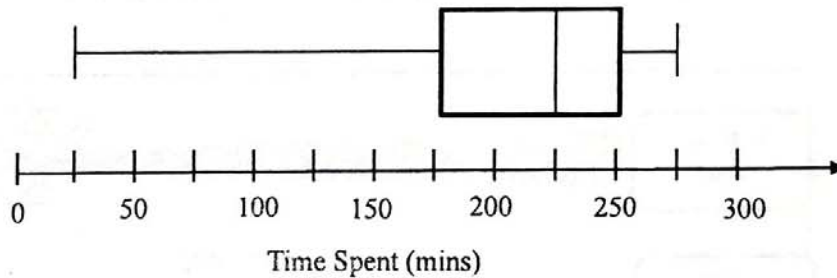
Use the curve to estimate

- (i) the median, [1]

- (ii) the interquartile range. [2]

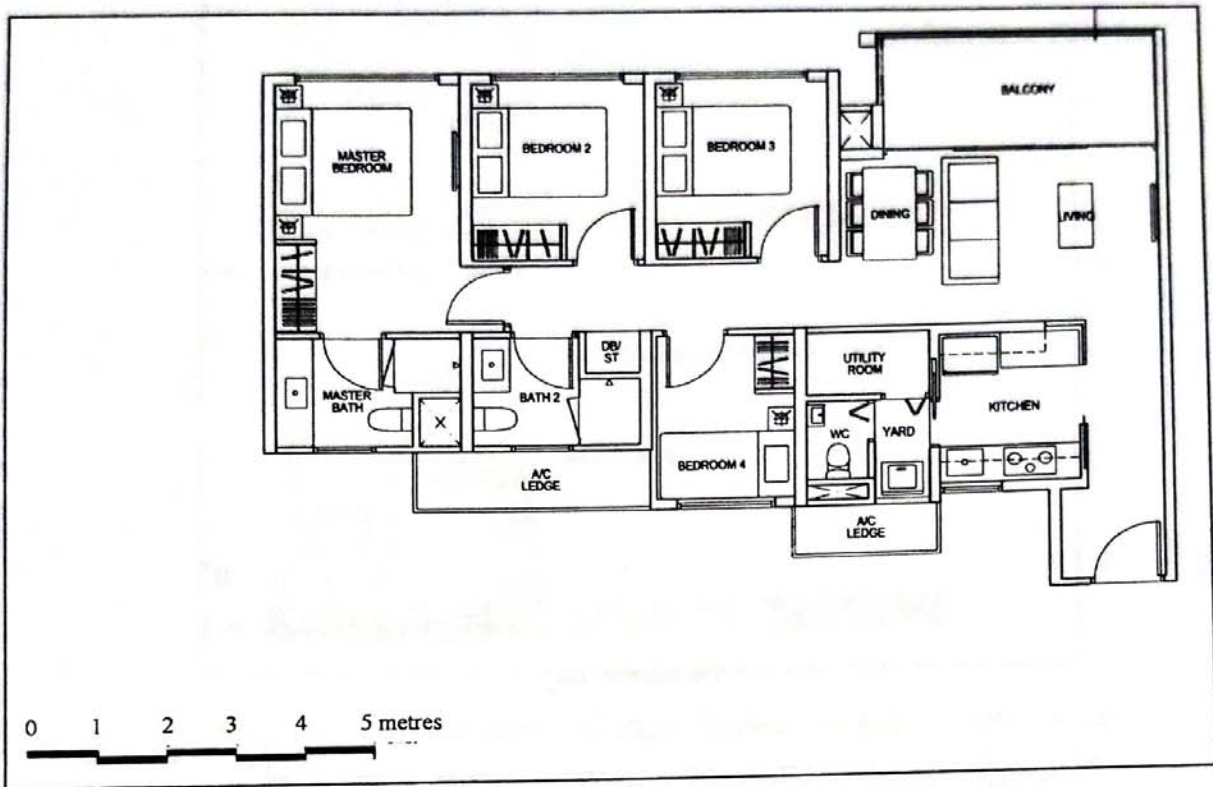
- (b) Through a market research, it was found out that the time spent on Facebook (another social media platform) is less popular and less consistent among the same group of 80 teenagers. A second cumulative frequency curve for the same group of 80 teenagers spending their time on Facebook is drawn. Describe how the second cumulative frequency curve may differ from the curve for Instagram. [2]

- (c) The box-and-whisker plot represents the distribution of the time spent for the same group of 80 teenagers on SnapChat (another social media platform).



- For this group of 80 teenagers, which of the social media platforms - Instagram, Facebook or Snapchat, is the most popular? Support your answer with an appropriate statistical measure. [2]

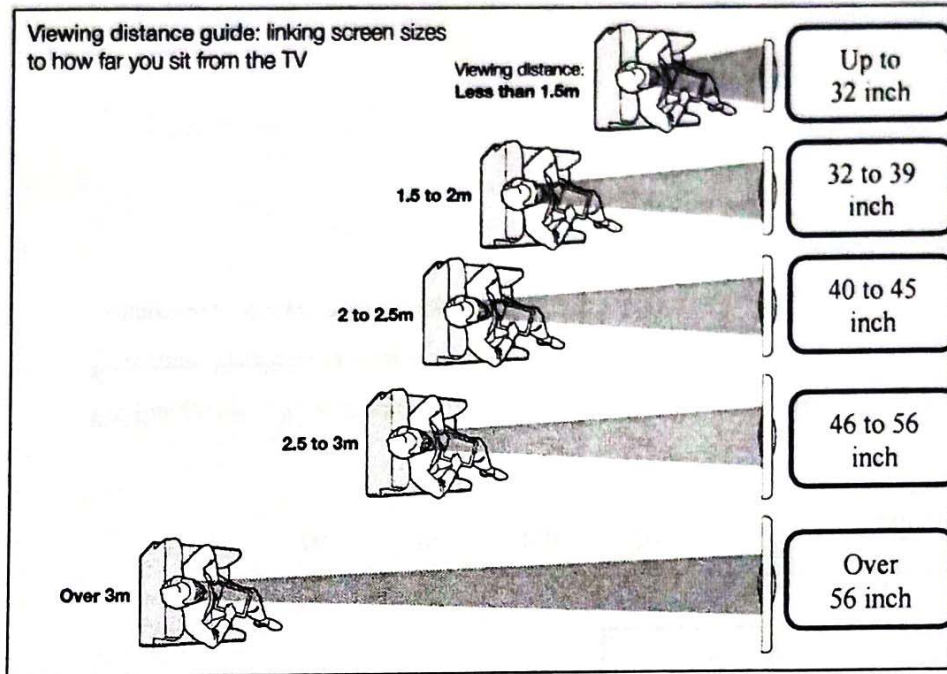
10. Ms Tan got her new home recently and the layout of her house is shown in the diagram below. The layout is drawn to scale.



- (a) Express the scale of the map in the form of  $1:n$ . [1]

(b) Ms Tan decides to get a television set for her living room.

She found the following infographic online.



What is the range of television size which Ms Tan should get for her living room?

[2]

- (c) Ms Tan decided to shop for her television set online and she saw the following options:

The screenshot displays two product listings for LG OLED 4K Smart TVs. Each listing includes the LG logo, the product name, a price tag, a quantity selector (set to 1), and an 'Add to Cart' button. The first listing is for a 55-inch model priced at SGD2,988.00. The second listing is for a 65-inch model priced at SGD4,988.00.

Ms Tan pays a downpayment of \$2 000 for her television set as suggested in (b). She pays the remaining amount over 3 months, with a simple interest rate of 7 % per annum. Calculate her monthly instalment. [3]

- End of Paper -

