PSLE STANDARD MATHEMATICS

PAPER 1

(45 marks)

Booklet A (20 marks)

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Write your answer (1, 2, 3 or 4) in the brackets provided. All diagrams in this paper are not drawn to scale unless stated otherwise. The use of calculators is <u>NOT</u> allowed.

1.   What is the value of $24 - 16 \div 4 \times 5$?

    (1)   2
    (2)   4
    (3)   10
    (4)   20

            (   )

2.   What is the missing number in the box?

$34728 = 30000 + 4000 + 700 + \boxed{} + 8$

    (1)   2
    (2)   20
    (3)   200
    (4)   2000

            (   )

3.   Round off 648 382 to the nearest ten thousand.

    (1)   640 000
    (2)   648 000
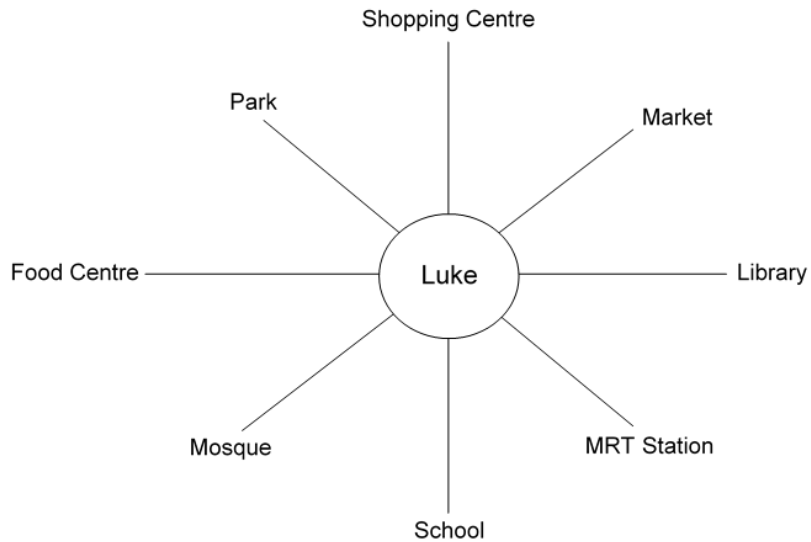   (3)   649 000
    (4)   650 000

            (   )

4. What is the missing number in the box?

$$\frac{2}{8} + \frac{3}{8} + \frac{1}{8} = \frac{1}{8} + \frac{1}{8} \times \boxed{}$$

   (1) 5
   (2) 6
   (3) 3
   (4) 4

( )

5. Luke is facing the School. He will be facing the park if he turns_____ clockwise.

   (1)   67.5°
   (2)   135°
   (3)   180°
   (4)   225°

( )

6. Edwin was paid $6 for an hour of work at a factory. He started work at 8.00 am. He was paid $30 when he stopped work. At what time did he stop work?

   (1) 12 p.m.
   (2) 1 a.m.
   (3) 1 p.m.
   (4) 2 p.m.

( )

7. Arrange the fractions $\dfrac{1}{2}$, $\dfrac{2}{11}$, $\dfrac{2}{10}$ and $\dfrac{7}{12}$ in increasing order.

(1) $\dfrac{7}{12}$, $\dfrac{2}{11}$, $\dfrac{2}{10}$, $\dfrac{1}{2}$

(2) $\dfrac{1}{2}$, $\dfrac{2}{10}$, $\dfrac{2}{11}$, $\dfrac{7}{12}$

(3) $\dfrac{2}{10}$, $\dfrac{2}{11}$, $\dfrac{1}{2}$, $\dfrac{7}{12}$

(4) $\dfrac{2}{11}$, $\dfrac{1}{2}$, $\dfrac{7}{12}$, $\dfrac{2}{10}$

(　　)

8. The table shows the number of visitors to the Bird Park from January to April. What is the average number of visitors from January to February?

Month	January	February	March	April
Number of visitors	21 407	43 105	52 145	30 130

(1) 32256
(2) 79005
(3) 161280
(4) 806400

(　　)

9. Simon drove at an average speed of 80 km/h. How far did he travel after driving for 15 minutes?

(1) 4 km
(2) 20 km
(3) 65 km
(4) 95 km

(　　)

3

10. Solve 2q – 15 – q + 3

    (1)   3q + 12
    (2)   3q – 12
    (3)   q + 12
    (4)   q – 12

                                                                (   )

11. The table below shows the parking charges at a car park.

Vehicle Parking Charges	
7.00 a.m. to 5.30 p.m.	$1.20 per hour or part thereof
After 5.30 p.m.	$3.00 per entry

How much would Mrs Wong have to pay if she parked her car from 4.15 p.m. to 7 p.m. on the same day?

    (1) $4.50

    (2) $5.40

    (3) $9.00

    (4) $9.90

                                                                (   )

12. A pencil costs 4 times as much as an eraser. George paid $3 for 3 pencils and 3 erasers. How much did he pay for 2 pencils?

    (1) $0.40
    (2) $0.80
    (3) $1.60
    (4) $2.40

                                                                (   )

13. Joan had twice as much money as Tim. After Joan bought a book that cost $54.20, they both had the same amount of money. How much money did both of them have at first?

    (1) $27.10
    (2) $54.20
    (3) $108.40
    (4) $162.60

                                                                    (   )

14. The solid figure below is made of identical unit cubes.
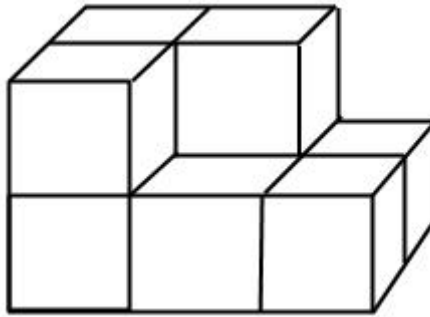
    What is the least number of unit cubes that could be added to the solid to form the next bigger cube?

    (1)   3
    (2)   9
    (3)   18
    (4)   27

                                                                    (   )

15. O is the centre of the circle. Find the shaded area. (Take π = 3.14)
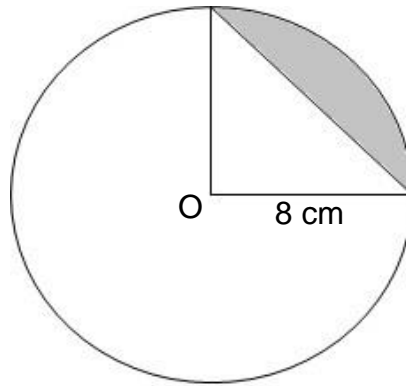
(1)   32 cm^2
(2)   18.24 cm^2
(3)   50.24 cm^2
(4)   82.24 cm^2

(   )

Booklet B: (25 marks)

**Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. The use of calculators is <u>NOT</u> allowed.**

(5 marks)

16.   Find the value of $5a + \dfrac{a}{2}$ when a = 8.

Ans: _____

17.   Find the value of $\dfrac{3}{7} \div \dfrac{3}{11}$.

Give your answer in the simplest form.

Ans: _____
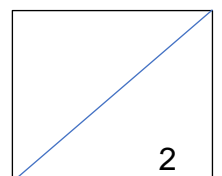
18. Joseph swam 816 m in 6 minutes. Find his average speed in m/min.

Ans: _____ m / min

19. Find the volume of a cube of side 12 cm.

Ans: _____ cm^3

20. The diagram below shows half of a symmetric figure with dotted line as its line of symmetry. Draw the other half of the symmetric figure to complete the symmetric figure.

2
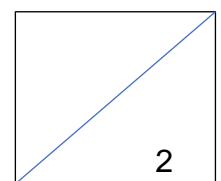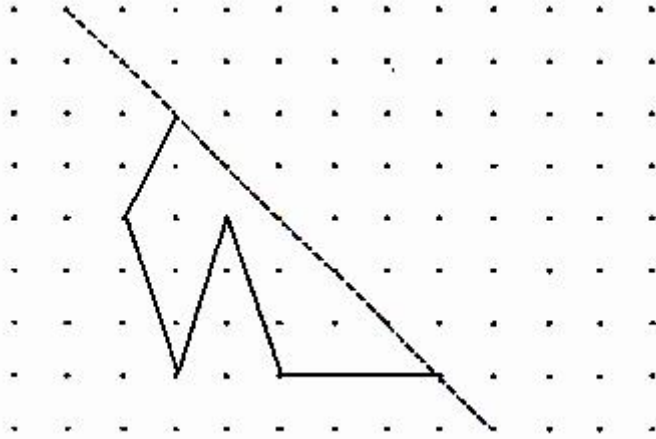
Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. The use of calculators is <u>NOT</u> allowed.

(20 marks)

21.   The number pattern below shows the top 7 layers of a pyramid.
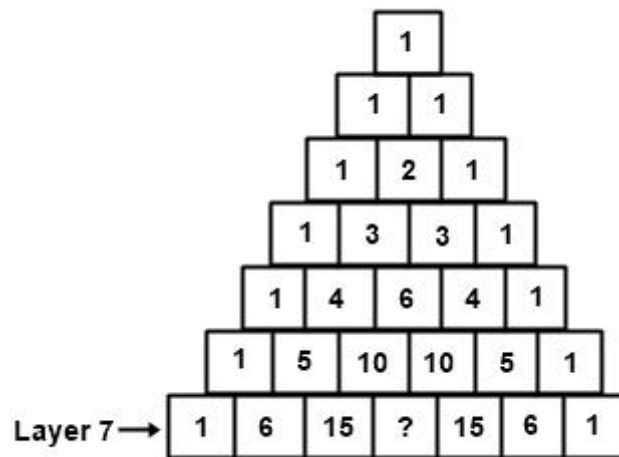
What is the missing number in Layer 7?

Ans: _____

3
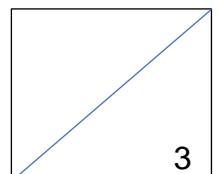
22. Hakim took 20 minutes to cycle from his school to his home. The distance he travelled was 5020 m. Find Hakim's speed in km/h.

Ans: _____ km/h

2
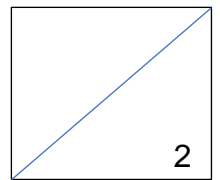
23. A cake cost $32 before discount. How much is the cake after a 20% discount?

Ans: $_____

24. Ahmad, Bala and Charlie have some marbles in the ratio of 5 : 7 : 8. If Charlie has 56 marbles, how many marbles do Ahmad and Bala have altogether?

Ans: _____
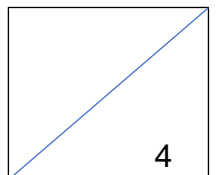
25. The figure below shows a right-angled triangle. BC and CD are the mid - points of the triangle.

Given that AC = CE = 8 cm, and AB = BC = CD = DE, find the shaded area.
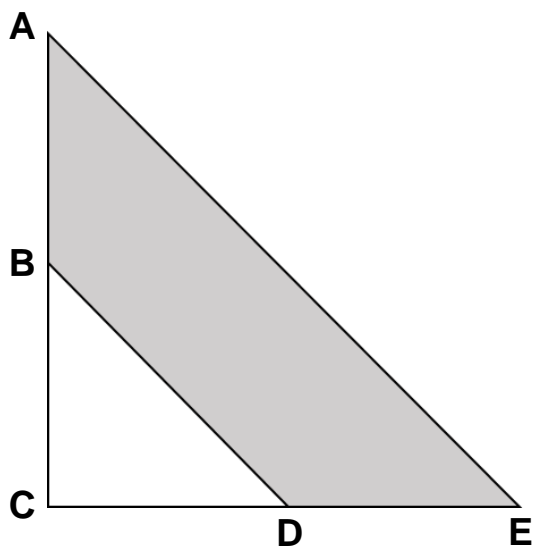
Ans: _____ cm^2

2
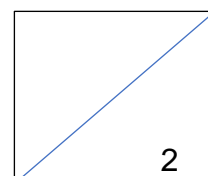
26. Steven prepared $\frac{5}{7}$ litres of orange juice for some friends. He poured the juice into cups of exactly $\frac{1}{7}$ litre each. How many cups are filled with orange juice?

Ans: _____

27. In the figure, ABCD is a rectangle and CEFG is a square. ∠EHC = 62°. Find ∠DCE.

A _____ B

F
H
62°
E
G

D _____ C

Ans: _____°

4
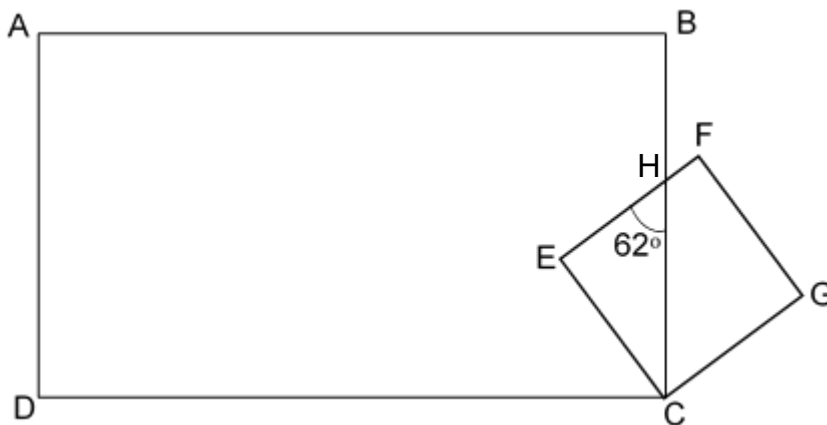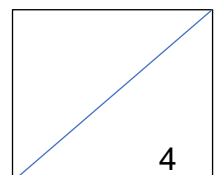
28. The solid below is made up of 7 identical cubes. The solid has a total volume of 189 cm^3. How many more cubes have to be added to form a solid with total volume of 297 cm^3?
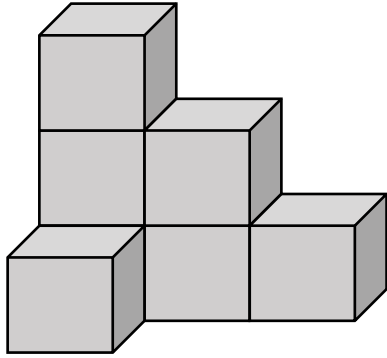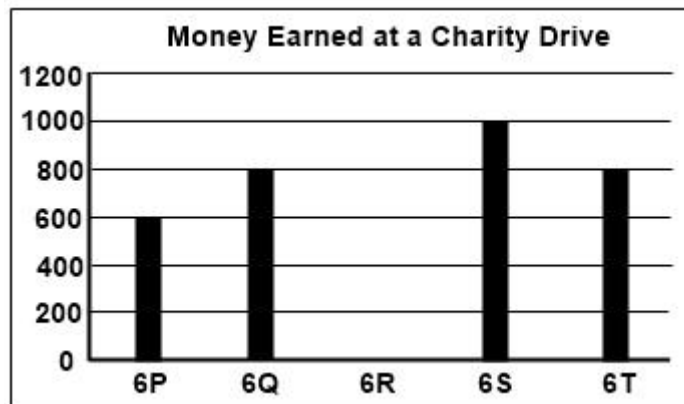

Ans: _____

29. The diagram below shows the net of a cube. The cube is placed with Face "2" at the bottom of the cube. What is the sum of the numbers at the bottom and top faces of the cube?
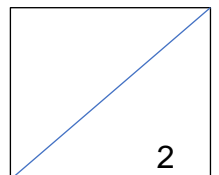
1	2	
	3	4
		5	6

Ans: _____

4
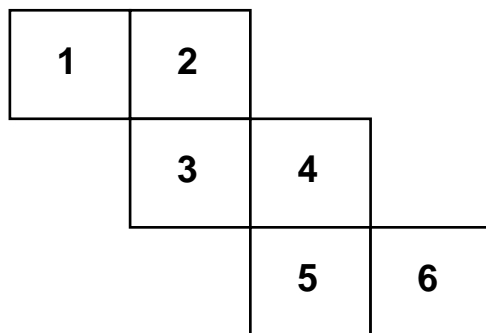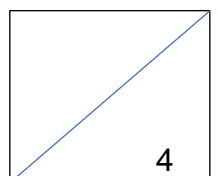
30. The bar graph below shows the amount of money earned by 5 classes during a charity drive.

Money Earned at a Charity Drive

If the total amount of money earned by the 5 classes is $3600, **draw** the bar in the graph to represent the amount Class 6R earned.

Ans: _____

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. You may use an approved calculator.

(10 marks)

1. John is (25n + 3) years old now. He is 6n years older than Serene.

    What is their total age now? Give your answer in terms of n.

    Ans: _____ years old

_____

2. Mrs Lee plans to buy durians at the market. If she buys 12 kg of durian, she would need another $17. If she buys 8 kg of durian, she would have $9 left. How much money did Mrs Lee bring to the market?
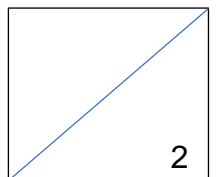
    Ans: _____
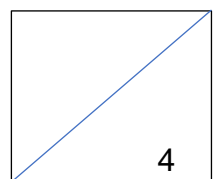
3. Isz had some cookies. He gave $\frac{2}{7}$ of them to his brother and $\frac{2}{5}$ of the remainder to his neighbour. If Isz had 72 cookies left, how many cookies did he give his neighbour?
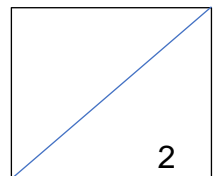
Ans: _____

2

4. The table below shows the number of mobile devices owned per household in a housing estate.

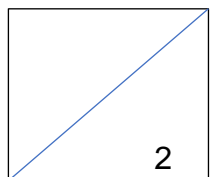| Number of mobile devices owned per household	1	2	3	4	5
Number of households	123	238	357	272	110

What percentage of households own 5 mobile devices?

Ans: _____%

2

5. The figure below is made up of a quadrant and a triangle. The quadrant has a radius of 28 cm. What is the area of the figure? (Take π as $\dfrac{22}{7}$)

28 cm

35 cm

32 cm
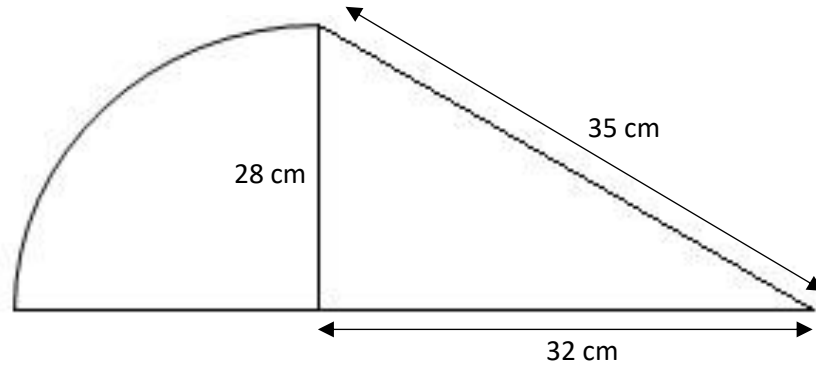
Ans: _____ cm^2

2

For questions 6 to 17, show your working clearly in the space below each question and write your answers in the spaces provided. The number of marks awarded is shown in brackets [ ] at the end of each question or part-question.

(45 marks)

6.   Every time Faith saves 40 cents, her grandmother puts another 80 cents into her savings. How much did Faith contribute to her savings if she has $38.40?

Ans: $ _____ [3]

_____

7.   There were 40p birds in Park A and Park B altogether. After 44 birds were removed from Park B, there were 3 times as many birds in Park A than in Park B.

(a)   How many birds were there in Park A? Express the answer in terms of p.

(b)   If p = 10, find the number of birds in Park A.
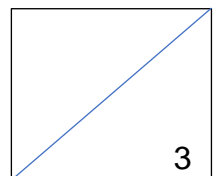
Ans: (a) _____ [2]

(b) _____ [1]

6
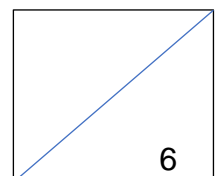
8.   Evelyn went to the money changer to exchange $1200 Singapore Dollars for Malaysian Ringgit. At the counter, she saw the exchange rate table as shown below:
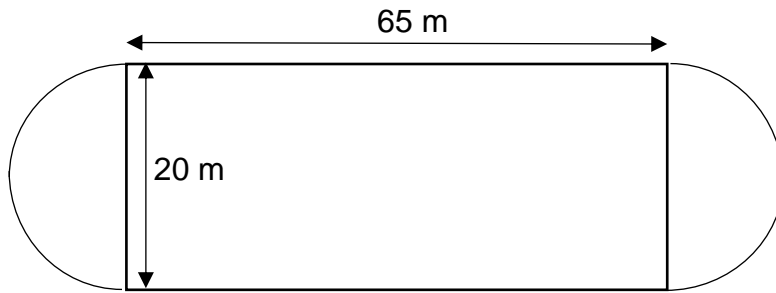
> 1 Singapore Dollar = 0.72 US Dollar
> 1 Malaysian Ringgit = 0.24 US Dollar

How much would Evelyn get in Malaysian ringgit for $1200 Singapore Dollars?

Ans: _____ Malaysian Ringgit [3]

3

9. Dexter went to exercise at the stadium. If he ran 5 rounds, what was the total distance he ran? (Take π as 3.14)

65 m

20 m

Ans: _____ m [3]

_____

10. William bought a car. After paying for the down payment, he can choose to pay a monthly instalment of $4200 for 20 years or a monthly instalment of $3580 for 30 years

(a) What will be the total amount of money paid for the 30-year instalment plan?

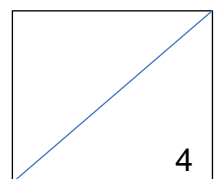(b) How much less would he pay if he choose the 20 year plan instead of the 30 year plan?

Ans: (a) _____ [1]

(b) _____ [2]

6
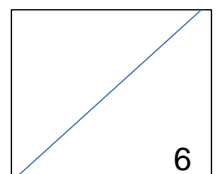
11. Ron borrowed a book from the library. He read an equal number of pages each day. At the end of the 15th day, he had read $\dfrac{7}{12}$ of the book. At the end of the 18th day, there were 240 pages left. How many pages were there in the book?
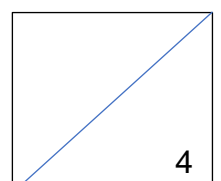
Ans: _____ [4]

4

8

12. In the figure below, not drawn to scale, Rectangle ABCD is made up of 4 isosceles right-angled triangles and a square. The ratio of the area of Triangle ABF to the area of Triangle BCE is 9 : 8. The perimeter of the square is 56 cm. Find the area of Rectangle ABCD.
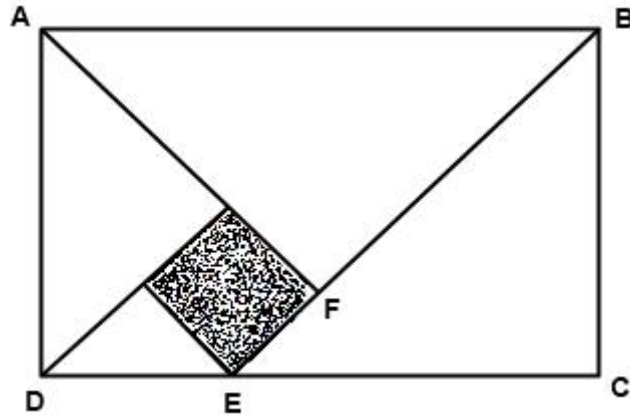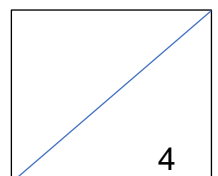

Ans: _____ [4]

13. The total height of 4 boys was 5.44 m. A fifth boy joined the group and the average height increased by 0.2 m. A sixth boy joined the group and the average height then increased by 0.03 m.

(a) What was the average height of the first 4 boys?

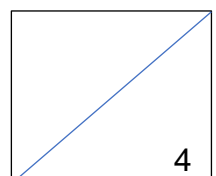(b) What was the height of the sixth boy?

Ans: (a) _____ [1]

(b) _____ [3]

4

14. Mrs Tan wanted to distribute some stickers to her pupils. If she were to distribute 8 stickers to each pupil, she would be short of 6 stickers. If she were to distribute 5 stickers to each pupil, she would have an excess of 108 stickers.

(a) How many pupils were there in her class?

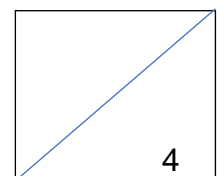(b) How many stickers did she have?

Ans: (a) _____ [2]

(b) _____ [2]

11

4

15. A cubical tank is $\frac{5}{6}$ full of water and it contains 22 500 m^3 of water. When the water is poured into an empty rectangular tank, it fills up $\frac{2}{3}$ of the tank.

(a) What is the length of one-side of the cubical tank?

(b) What is the height of the rectangular tank?
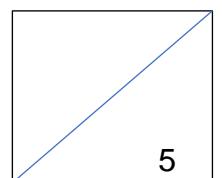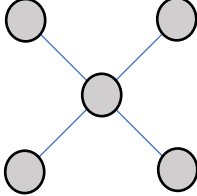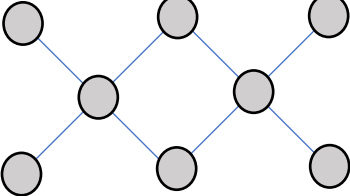

15 m

50 m

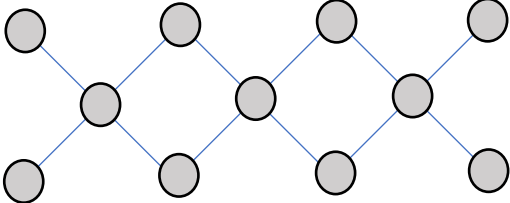Ans: (a) _____ [2]

(b) _____ [2]

4
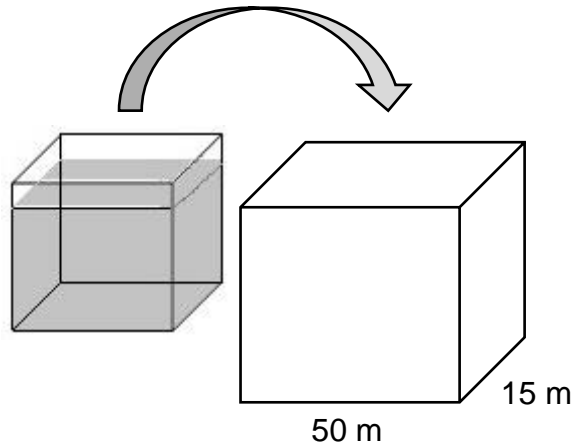
16. The distance between Town A and Town B is 300 km. Terence left Town A at 8.25 am and drove towards Town B at 60 km/h. Twenty minutes later, Jolene left Town A and drove towards Town B but she arrived at Town B 10 minutes earlier than Terence.

(a) At what time did Jolene arrive at Town B?

(b) What was Jolene's average speed? (Give your answer in fractions)

Ans: (a) _____ [3]

(b) _____ [2]

5

13

17.   Study the following patterns.

Pattern 1	
Pattern 2	
Pattern 3	

(a)   How many circles will there be in Pattern 4?

(b)   Which pattern will have 302 circles?

Ans: (a) _____ [2]

(b) _____ [3]

END OF PAPER 2

5