



MARIS STELLA HIGH SCHOOL (PRIMARY)

PRIMARY 6 MATHEMATICS

TERM 2 WEIGHTED ASSESSMENT

11 MAY 2023

17 questions

55 marks

Total Time: 1 hour and 30 minutes

NAME : _____ ()

CLASS : PRIMARY 6 _____

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

YOU ARE ALLOWED TO USE A CALCULATOR.

ANSWER ALL QUESTIONS.

MARKS OBTAINED

TOTAL: _____ / 55

Parent's Signature:

Date:

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

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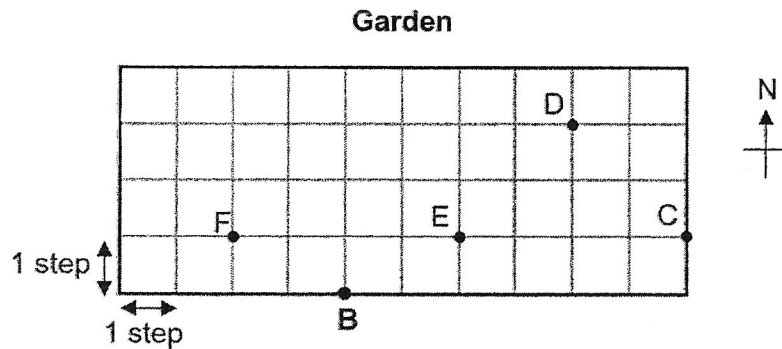
1. Use all the digits 0, 2, 5, 3 to form
- (a) the smallest 4-digit odd number

Answer: (a) _____

- (b) the greatest multiple of 5

Answer: (b) _____

2. John was strolling in a garden and he started his stroll at position **B** facing north.



John took 2 steps west then 3 steps north and finally 2 steps west.

- (a) Mark 'X' on the grid to indicate John's final position.
- (b) Which letter (C, D, E or F) is south-east of John's final position?

Answer: (b) _____

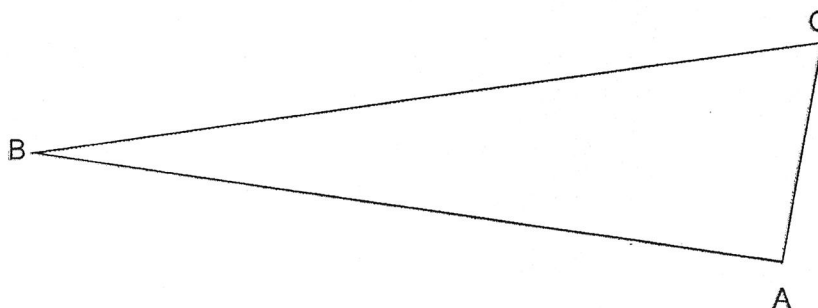
3. Mrs Lee spent $\frac{2}{7}$ of her salary on a bag. The bag cost \$320. How much was Mrs Lee's salary?

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Answer: \$ _____

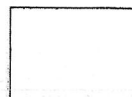
4. Measure and write down

- (a) the length of BC.
(b) the size of $\angle ABC$.

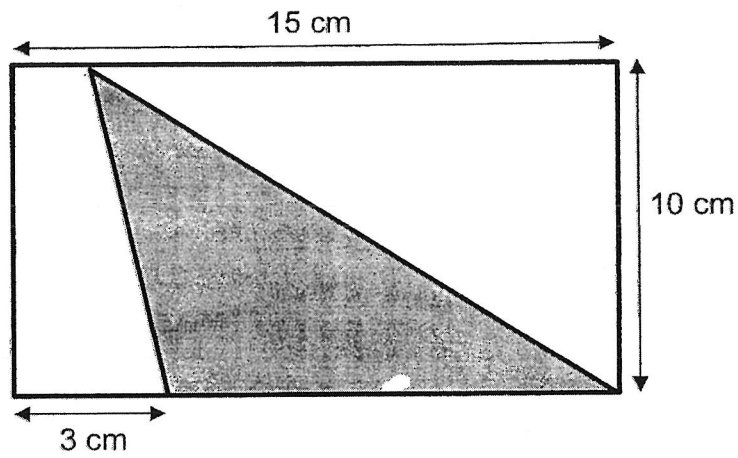


Answer: (a) _____ cm

(b) _____ °

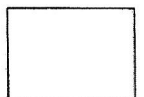


5. Find the area of the shaded triangle.



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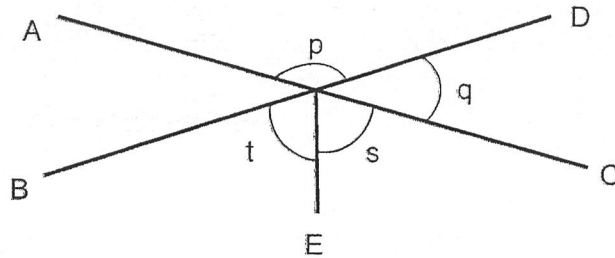
Answer: _____ cm^2



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 available is shown in the brackets [] at the end of each question or part-question. (45 marks)

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6. AC and BD are straight lines. $\angle s = \angle t$. $\angle s$ is 65° .



- (a) Find $\angle p$.

Answer: (a) _____ [1]

- (b) Find $\angle q$.

Answer: (b) _____ [2]

7. There were some men and women at a concert. 24 women left and as a result, the percentage of men at the concert increased from 50% to 70%. How many people were at the concert at first?

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Answer: _____ [3]

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8. The number of 50-cent coins to the number of 20-cent coins that Liam kept in a box is in the ratio 7 : 4. Each day, he took out \$1 worth of 50-cent coins and replaced them with \$1 worth of 20-cent coins. After 12 days, he had an equal number of 20-cent coins and 50-cent coins in his box. How many 50-cent coins were left in the box after 12 days?

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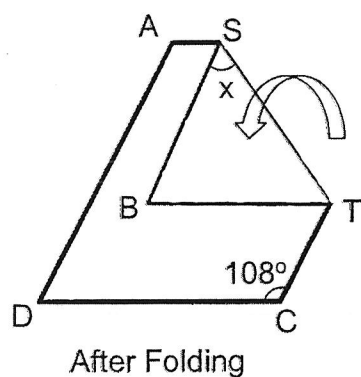
Answer: _____ [3]

9. Sara and Maddy had an equal amount of money at first. Sara received \$60 from her aunt and Maddy spent \$332. Then Maddy had $\frac{1}{9}$ of what Sara had. How much in total did the two of them have in the end?

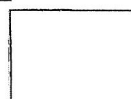
Answer: _____ [3]

10. ABCD is a piece of paper in the shape of a parallelogram. It is folded along line ST as shown below, where $SB = BT$. Find $\angle x$.

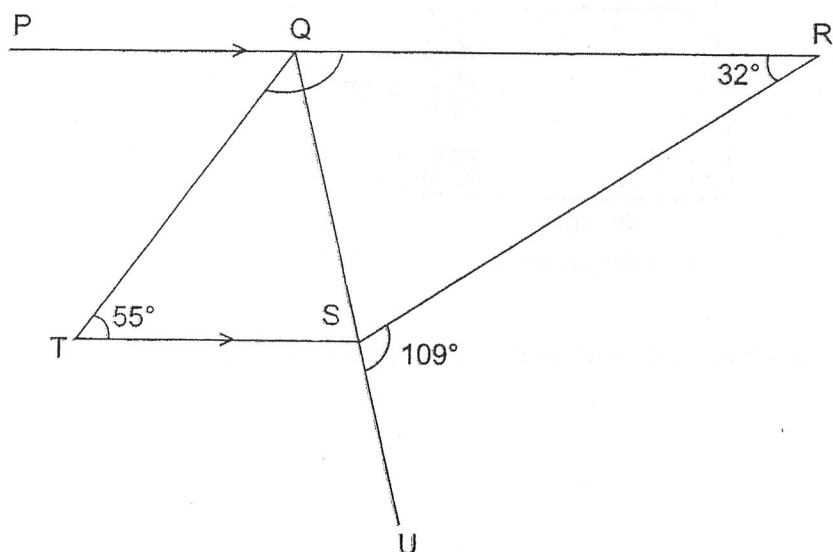
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Answer: _____ [3]



11. PQR and QSU are straight lines.



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- (a) Find $\angle TQR$.

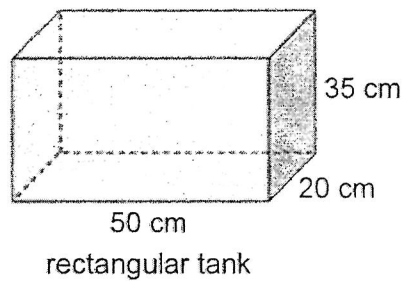
Answer: (a) _____ [1]

- (b) Find $\angle TSU$.

Answer: (b) _____ [2]

12. Meihua has some 2-cm cubes. She packs the cubes in the rectangular tank shown below.

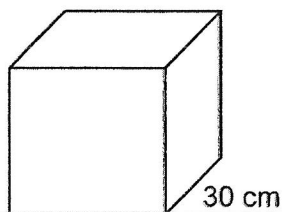
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- (a) At most, how many 2-cm cubes can she pack in the tank?

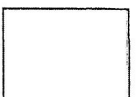
Answer: (a) _____ [2]

- (b) Meihua removed all the cubes and filled the rectangular tank with water to the brim. The water from the rectangular tank was then poured into a cubical container of sides 30 cm to its brim. How many litres of water was left in the rectangular tank?



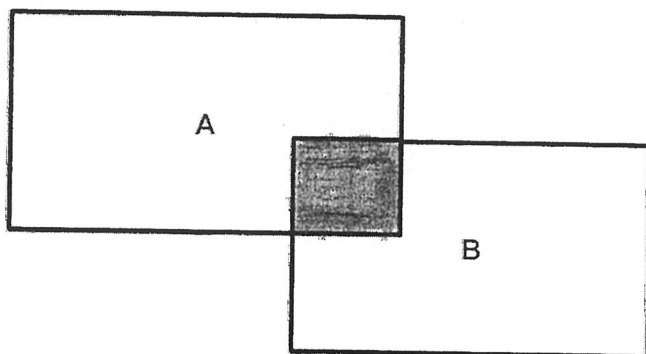
cubical container

Answer: (b) _____ [2]



13. The figure below shows 2 overlapping rectangles, A and B. The ratio of the area of rectangle A to the area of rectangle B is 10 : 9. 20% of rectangle A is shaded. The total unshaded area of rectangles A and B is 450 cm². What is the area of the shaded part?

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Answer: _____ [4]

14. Joey and Peter bought some cupcakes. Each of them spent \$18. Joey used a voucher that gave her a 20% discount and she got 3 cupcakes more than Peter.
- (a) How many cupcakes did Joey get?
- (b) Find the discount given for each cupcake.

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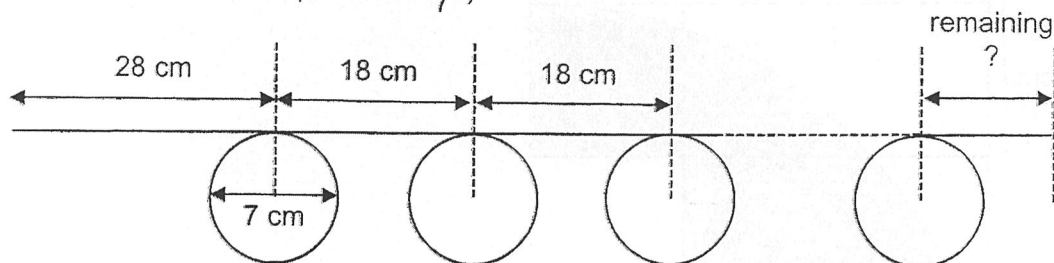
Answer: (a) _____ [2]

(b) _____ [2]

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15. Mr Yip has 5 m of wire. He bends the wire to form as many identical circles as possible at an equal distance apart in the pattern as shown below. The diameter of each circle is 7 cm. The distance from the centre of one circle to the centre of the next circle is 18 cm. (Take $\pi = \frac{22}{7}$)

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(a) What is the length of the remaining wire?

Answer: (a) _____ [4]

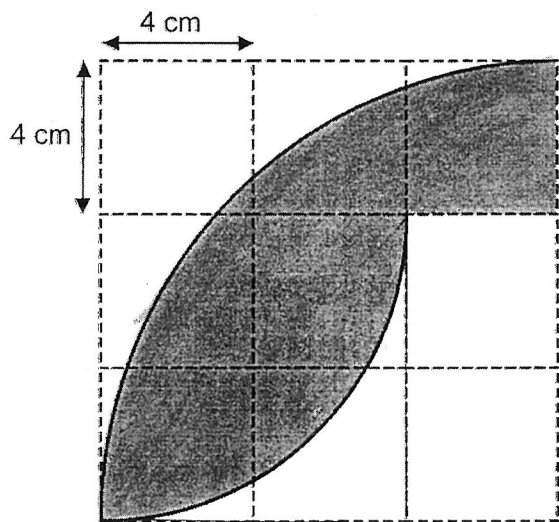
(b) How many circles did he form?

Answer: (b) _____ [1]

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16. The figure below shows 2 quarter circles of 2 different sizes on a square grid. The side of each small square is 4 cm. Find the area of the shaded part. (Taking $\pi = 3.14$)

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Answer: _____ [5]

17. Study the pattern below.

Figure 1

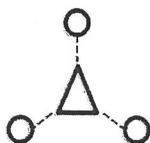


Figure 2

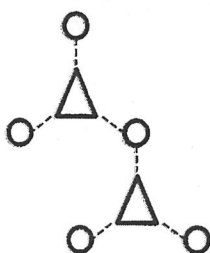
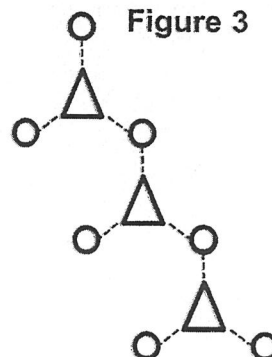


Figure 3



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| Figure number | Number of dotted lines | Number of circles | Number of triangles |
|---------------|------------------------|-------------------|---------------------|
| 1 | 3 | 3 | 1 |
| 2 | 6 | 5 | 2 |
| 3 | 9 | 7 | 3 |
| 4 | 12 | 9 | 4 |
| 5 | a(i) | a(ii) | 5 |

- (a) Complete the table for a(i) and a(ii).

[1]

- (b) Which figure contains 114 dotted lines?

Answer: (b) _____ [2]

- (c) A figure has 51 triangles. How many circles are there in this figure?

Answer: (c) _____ [2]

End of Paper

