



**Methodist Girls' School (Primary)**  
**Primary 6 Mathematics**  
**Weighted Assessment 1 2023**

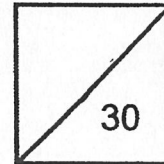
The use of calculators  
is allowed.

Name: \_\_\_\_\_ (      )

Date: \_\_\_\_\_

Class: Primary 6. \_\_\_\_\_

Marks:



Parent's Signature: \_\_\_\_\_

**Short – Answer Questions (SAQ)**

Questions 1 to 5 carry 2 marks each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (12 marks)

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1. The ratio of Ali's salary to Ben's salary is 4 : 7.

(a) What fraction of Ali's salary is Ben's salary?

Ans: (a) \_\_\_\_\_

(b) What fraction of their total salary is Ali's salary?

Ans: (b) \_\_\_\_\_

2. Joey's allowance is  $\frac{3}{4}$  of Mary's allowance.

(a) What is the ratio of Joey's allowance to the total allowance of Joey and Mary?

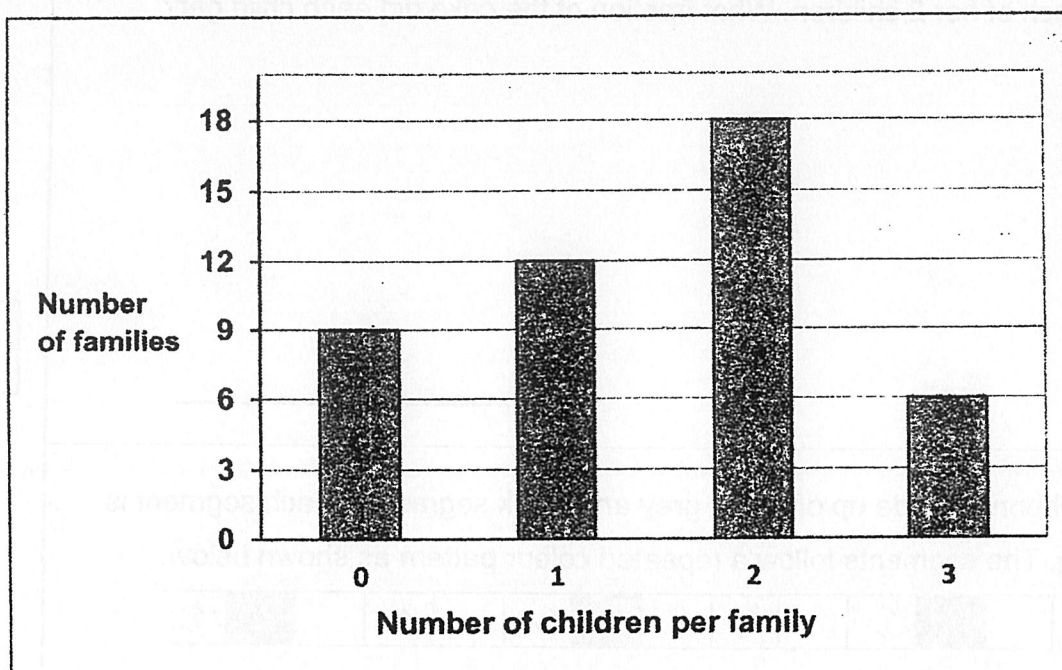
Ans: (a) \_\_\_\_\_

(b) Mary's allowance is \$20. How much is Joey's allowance?

Ans: (b) \$ \_\_\_\_\_



3. The bar graph below shows the number of children in a housing estate.



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- (a) What is the ratio of the number of families with 1 child to the number of families with 3 children? Give your answer in the simplest form.

Ans: \_\_\_\_\_

- (b) What fraction of the families in the estate has 2 children?

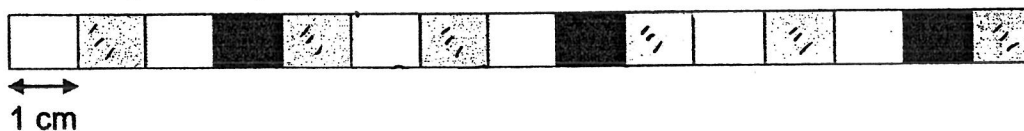
Ans: \_\_\_\_\_

4. Mrs Lim baked a cake and gave  $\frac{2}{5}$  of it to her husband. She gave the remaining cake to each of her 2 children. What fraction of the cake did each child get?

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Ans: \_\_\_\_\_

5. A roll of ribbon is made up of white, grey and black segments. Each segment is 1 cm long. The segments follow a repeated colour pattern as shown below.



Given that the piece of ribbon is 42 cm long, what fraction of the ribbon is white?

Ans: \_\_\_\_\_

6. Leon wrote a fraction on the whiteboard. The difference between the numerator and denominator of the fraction is 27. When 3 is added to its denominator, the fraction becomes  $\frac{1}{4}$ . What is the fraction that Leon wrote?

Ans: \_\_\_\_\_



**Long Answer Questions (LAQ)**

For questions 7 to 12, show your working clearly and write your answers in the space provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (18 marks)

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7. At a tennis match, the ratio of the number of adults to the number of children is 5 : 2. There were 3 times as many men as women. The number of children is 350 fewer than the number of men. How many women were at the tennis match?

Ans: \_\_\_\_\_ [3]

8. Linda made 3 l of lemonade. She gave  $\frac{3}{5}$  of it to her neighbour. She poured the remaining lemonade into identical cups. The capacity of each cup was  $\frac{3}{8}$  l.  
a) How many cups could she fill to the brim?

Ans: (a) \_\_\_\_\_ [2]

- b) How much lemonade was left?

Ans: (b) \_\_\_\_\_ [1]

9. 108 boys registered for a camp. The number of girls who registered for the camp is  $\frac{1}{3}$  the number of boys who registered. The ratio of the number of participants who could swim to the number of participants who could not is  $7 : 2$ .  $\frac{3}{8}$  of those who could not swim are girls. Find the number of girls who could swim.

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Ans: \_\_\_\_\_ [3]

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10. Ben and Kenny had 250 marbles altogether. Ben gave away  $\frac{3}{5}$  of his marbles and Kenny lost  $\frac{2}{3}$  of his marbles. In the end, both of them had 95 marbles left altogether. How many marbles did Ben have at first?

Ans: \_\_\_\_\_ [3]

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11. Venna fills two identical cylinders with water and oil to the brim.  $\frac{2}{5}$  of cylinder A is filled with oil while  $\frac{1}{8}$  of cylinder B is filled with oil. There is 110 ml more water in cylinder B than in cylinder A. What is the total volume of the water in both cylinders?

Cylinder A



Cylinder B



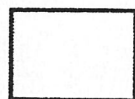
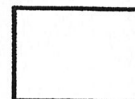
Ans: \_\_\_\_\_ [3]

12. Container A, Container B and Container C had a total of 1600 ml of water at first. All 3 containers then had equal amount of water after 40 ml of water from Container C was poured away and  $\frac{1}{5}$  of the amount of water in Container A was poured out equally into Container B and Container C. What was the amount of water in Container C at first?

Ans: \_\_\_\_\_ [3]

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**Methodist Girls' School (Primary)**  
**Primary 6 Mathematics**  
**Weighted Assessment 2 2023**

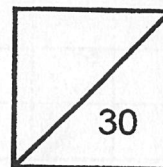
The use of calculator  
is allowed.

Name: \_\_\_\_\_ ( )

Date: \_\_\_\_\_

Class: Primary 6. \_\_\_\_\_

Marks:



Parent's Signature: \_\_\_\_\_

**Short – Answer Questions (SAQ)**

Questions 1 to 6 carry 2 marks each. Write your answers in the spaces provided.  
 For questions which require units, give your answers in the units stated. (12 marks)

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1. (a) Express  $\frac{3}{5}$  as a percentage.

Ans: (a) \_\_\_\_\_ %

- (b) Express 1.2% as a decimal.

Ans: (b) \_\_\_\_\_

2. (a) Class 6A has 40 students. 26 of the students are boys.  
 What percentage of the students are girls?

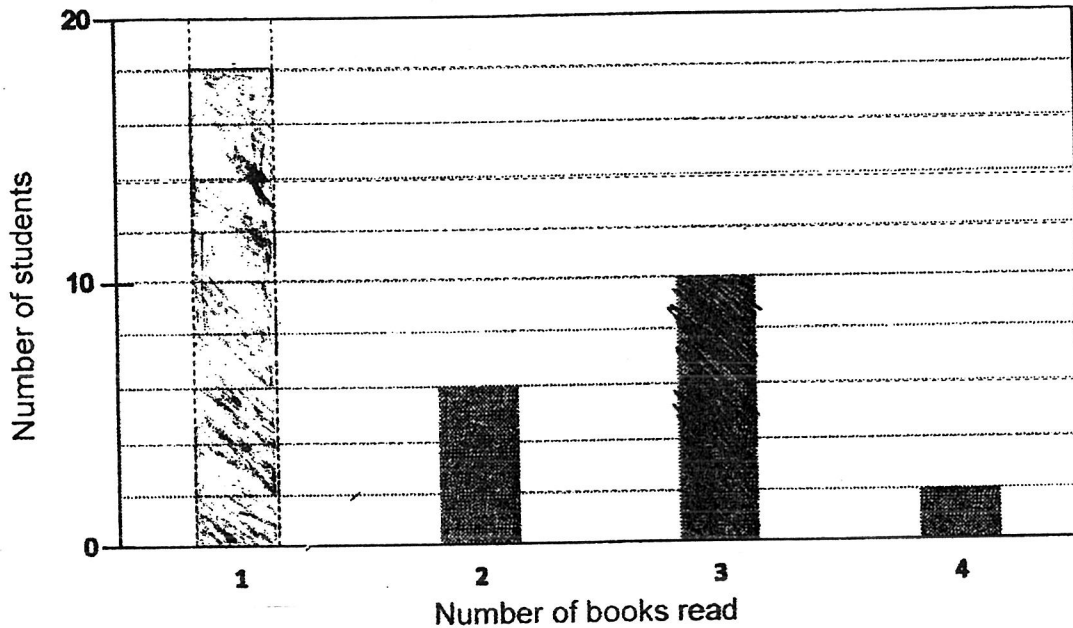
Ans: (a) \_\_\_\_\_ %

- (b) Mrs Raj paid \$181.90 for an iron which included 7% GST.  
 What was the price of the iron without GST?

Ans: (b) \$ \_\_\_\_\_

3. The bar graph shows the number of books students from class 6G read each week. All the students read at least 1 book. 50% of the students read more than 1 book.

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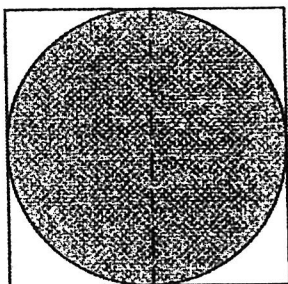


- (a) Draw the bar for the number of students who read 1 book in the graph above.
- (b) The number of students who read 4 books is \_\_\_\_\_ % of those who read 3 books.


4. The perimeter of the square shown below is 40 cm.

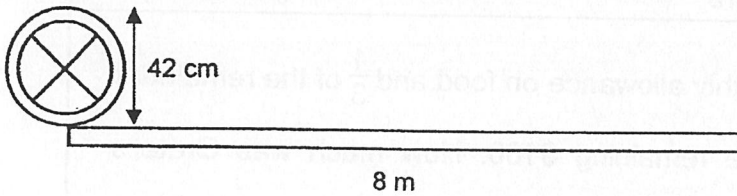
Find the area of the circle. (Take  $\pi = 3.14$ )



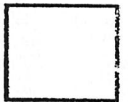
Ans: \_\_\_\_\_ cm<sup>2</sup>

5. A wheel with a diameter of 42 cm is rolled along a path measuring 8 m. How many complete turns can the wheel make? (Take  $\pi = 3.14$ )

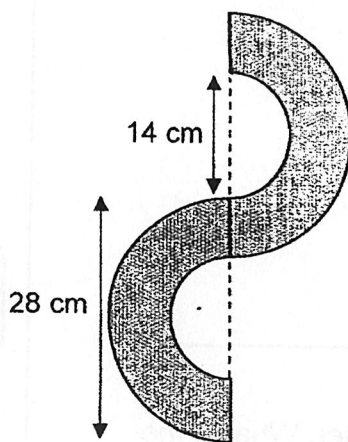
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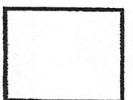
Ans: \_\_\_\_\_



6. The figure is made up of four semicircles. The diameter of the large semicircle is 28 cm while the diameter of the small semicircle is 14 cm. Find the perimeter of the figure. (Take  $\pi = \frac{22}{7}$ )



Ans: \_\_\_\_\_ cm



**Long Answer Questions (LAQ)**

For questions 7 to 12, show your working clearly and write your answers in the space provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (18 marks)

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7. Gretel spent 55% of her monthly allowance on food and  $\frac{1}{3}$  of the remainder on transport. She saved the remaining \$180. How much was Gretel's monthly allowance?

Ans: \_\_\_\_\_ [2]

8. Tina has a collection of red, blue and yellow beads. The number of blue beads is 40% of the number of red beads.  $\frac{3}{10}$  of her beads are yellow and 325 of her beads are red.
- (a) How many beads does Tina have altogether?

Ans: (a) \_\_\_\_\_ [2]

- (b) Tina receives another 78 yellow beads from her sister. What is the percentage increase in the number of yellow beads that Tina has?

Ans: (b) \_\_\_\_\_ [2]



9. A yellow and a pink watch had the same original price. The yellow watch was given a 20% discount while the pink watch was given a 30% discount. To buy the yellow watch, Jane would need \$4.50 more than what she had. Jane bought the pink watch and had \$3 left.

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(a) What was the original price of each of the watches?

Ans: (a) \_\_\_\_\_ [2]

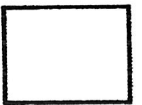
(b) How much money did Jane have?

Ans: (b) \_\_\_\_\_ [1]

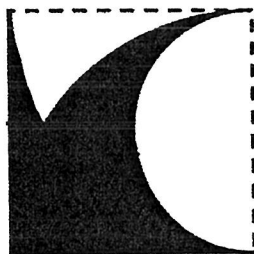
10. The participants of a camp are divided into two equal groups. In the first group, there are 10 more girls than boys. In the second group, there are 18 more boys than girls. 40% of the participants are girls. How many of the participants are boys?

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Ans: \_\_\_\_\_ [2]

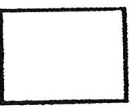


11. A figure is formed by two identical quarter circles and a semicircle within a square of side 64 cm. Find the perimeter of the shaded figure.  
(Take  $\pi = 3.14$ )



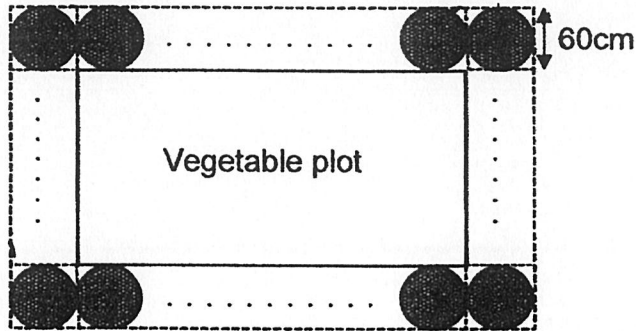
64 cm

Ans: \_\_\_\_\_ [3]



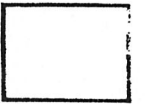
12. The figure shows a vegetable plot with a perimeter of 1080 cm. The ratio of the length to the breadth of the vegetable plot is 2 : 1. A footpath tiled with identical circular tiles is built around it. The diameter of each tile is 60 cm. Each tile is in contact with the one next to it.

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- (a) Find the number of circular tiles used to build the footpath.

Ans: (a) \_\_\_\_\_ [1]

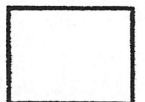


- (b) Find the area of the footpath not covered by the tiles.

Give your answer correct to two decimal places.

(Take the calculator value of  $\pi$ )

Ans: (b) \_\_\_\_\_ [3]



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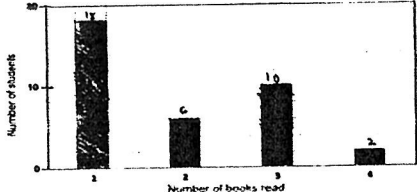


YEAR : 2023  
 LEVEL : PRIMARY 6  
 SCHOOL : METHODIST GIRLS' SCHOOL (PRIMARY)  
 SUBJECT : MATHEMATICS  
 TERM : WEIGHTED ASSESSMENT 1

**WEIGHTED ASSESSMENT 1**

Q1	(a) $\frac{7}{4}$ (b) $4 + 7 = 11$ $\frac{4}{11}$	Q2	(a) $3 : 7$ (b) $4u : \$20$ $1u : 5$ Joey : $3u = \$15$									
Q3	(a) $12 : 6$ $2 : 1$ (b) Total : $9 + 12 + 18 + 6 = 45$ $\frac{18}{45} = \frac{6}{15} = \frac{2}{5}$	Q4	$1 - \frac{2}{5} = \frac{3}{5}$ $\frac{3}{5} = 2$ children $\frac{3}{5} \div 2 = \frac{3}{10}$ of the cake									
Q5	$42 \div 5 = 8r2$ $8 \times 2 = 16$ $16 + 1 = 17$ Ans : $\frac{17}{42}$	Q6	$37 - 10 = 27$ Ans : $\frac{10}{37}$									
Q7	<table border="1"><tr><td>A : C</td><td>M : W</td><td>M : W : C</td></tr><tr><td>5 : 2</td><td>3 : 1</td><td>15 : 5 : 8</td></tr><tr><td>20 : 8</td><td>15 : 5</td><td></td></tr></table> $15 - 8 = 7u$ $7u : 350$ $1u : 50$ Women : $5u = 250$ women	A : C	M : W	M : W : C	5 : 2	3 : 1	15 : 5 : 8	20 : 8	15 : 5		Q8	a) $3L \div 5 = \frac{3}{5}L$ $\frac{3}{5} \times 3 = \frac{9}{5}$ $= 1\frac{4}{5}$ $3 - 1\frac{4}{5} = 1\frac{1}{5}$ $1\frac{1}{5} \div \frac{3}{8} = 3$ cups b) $\frac{1}{50} \times \frac{3}{8} = \frac{3}{40}L$
A : C	M : W	M : W : C										
5 : 2	3 : 1	15 : 5 : 8										
20 : 8	15 : 5											
Q9	$108 \rightarrow 3u$ $1u \rightarrow 36$ $36 \times 4 = 144$ $7 + 2 = 9$ $9p : 144$ $1p : 16$ $2p : 32$ $3 + 5 = 8p$ $32 \div 8 = 4$ $4 \times 3 = 12$ $36 - 12 = 24$ Girls	Q10	$\frac{1}{3}K : 500 - 475 = 25$ $K = 25 \times 3 = 75$ $B : 250 - 75 = 175$									
Q11	$\frac{2}{5} - \frac{1}{8} = \frac{11}{40}$ $11U : 110\text{ml}$ $1u : 10$ $\frac{3}{5} = \frac{24}{40}$ $\frac{7}{8} = \frac{35}{40}$ $\frac{8}{8} = \frac{40}{40}$ $59 \times 10 = 590\text{ml}$	Q12	$\frac{1}{5}$ of A : $520 \div 4 = 130$ $1600 - 40 = 1560$ $1560 \div 3 = 520$ $130 \div 2 = 65$ $520 - 65 + 40 = 495\text{ml}$									

# **WEIGHTED ASSESSMENT 2**

Q1	$(a) \frac{3}{5} = \frac{60}{100}$ $= 60\%$ $(b) \frac{1.2}{100} = 0.012$	Q2	$(a) 40 - 26 = 14$ $\frac{14}{40} \times 100\% = 35\%$ $(b) 181.90 : 107\%$ $1\% : 181.90 \div 107 = 1.70$ $100\% : \$170$
Q3	<p>(a)</p>  <p>(b) 20%</p>	Q4	$40 \div 4 = 10$ $\frac{5 \times 5 \times 3.14}{1} = 78.75\text{cm}^2$
Q5	$1\text{m} = 100\text{cm}$ $\text{Circumference of circle} = 3.14 \times 42 = 131.88$ $800 \div 131.88 = 6.0661$ $\approx 6 \text{ complete turns}$	Q6	$28 \div 2 = 14$ $2\text{Ls} : 2 \times \frac{22}{7} \times 14$ $= 88$ $1\text{Ls} : 88 \div 2 = 44$ $28 - 14 = 14$ $14 \div 2 = 7$ $C : 2\pi r$ $2 \times \frac{22}{7} \times 7 = 44$ $44 \div 2 = 22$ $7 + 44 + 22 + 22 + 7 + 44 = 146\text{cm}$
Q7	$100 - 55 = 45$ $45 \div 3 = 15$ $15 \times 2 = 30\%$ $30\% : 180$ $10\% : 180 \div 3 = 60$ $100\% : \$600$	Q8	$(a) 10u = 325$ $1u = 32.5$ $\text{Total} : 6 + 14 = 20u$ $20u = 32.5 \times 20 = 650$ $(b) 3u : 65 \times 3 = 195$ $\frac{28}{195} \times 100 = 40\%$
Q9	$(a) 4.50 + 3 = 7.50$ $30 - 20 = 10$ $10\% : 7.50$ $100 : 7.50 \times 1 = \$75$ $(b) \$75 : 70\%$ $\$75 : 100\%$ $70\% 75 \times 0.7 = \$52.50$	Q10	$2u + 18 = 40\%$ $60\% : 2u + 18 + 8$ $20\% : 8$ $60\% : 24$ $\text{Ans: } 24$
Q11	$\frac{1}{4} \times 3.14 \times 108 = 100.48$ $+$ $\frac{1}{2} \times 3.14 \times 64 = 100.48$ $+$ $64 + 64 = 328.96\text{cm}$	Q12	$(a) 2 + 1 + 2 + 1 = 6$ $6u : 1080$ $1u : 180$ $2u : 180 \times 2 = 360$ $1B : 180 \div 60 = 3$ $360 \div 60 = 6$ $(6 + 3) \times 2 = 18$ $18 + 4 = 22 \text{ tiles}$

			$(b) 60 \times 60 = 3600$ $\frac{30 \times 30 \times \Pi}{1} = 900\Pi = 3.14$
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