

# PRIMARY 3

**NAME OF PARTICIPANT:** \_\_\_\_\_ **DATE:** \_\_\_\_\_  
**SCHOOL NAME:** \_\_\_\_\_

## GENERAL INSTRUCTIONS:

1. Do not open the booklet until you are told to do so.
2. You are given 90 minutes to attempt all 25 questions.
3. Ensure to enter the necessary information asked in the Answer Sheet such as your name, participant number, country, and year level.
4. Record your answers neatly on the Answer Sheet provided.
5. Marks are awarded for correct answers only. There is no penalty for incorrect answers.
6. Calculators are not allowed.
7. All figures are not drawn to scale. They are intended only as aids.
8. Start answering when the proctor gives the signal.

Part 1 (Questions 1 to 10):

There are 10 multiple-choice questions. Choose the best answer from the four possible choices

Each question carries 2 marks

Part 2 (Questions 11 to 25):

There are 20 open-ended questions, each requiring a single answer. Write your answer on the box provided in the Answer Sheet






Questions 11 to 20, each carries 3 marks

Questions 21 to 25, each carries 5 marks

Part 1: 1<sup>st</sup> to 10<sup>th</sup> Multiple-choice Questions

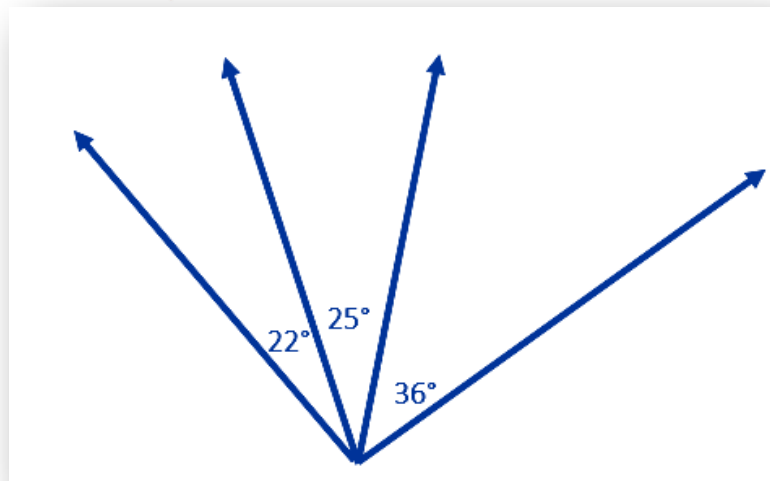
1. Arrange the following in increasing order, then determine the sum of the greatest and the smallest number.

$$\frac{6}{2}, \frac{5}{8}, 2, 1.5, \frac{3}{4}, \frac{5}{2}$$

- (a)  $15/8$       (b)  $15/16$       (c)  $29/8$       (d)  $15/4$
2.  and  are two prime numbers such that   $< 10 <$  . Find the smallest value of   $+ \img alt="star icon" data-bbox="170 485 195 510"/>.$

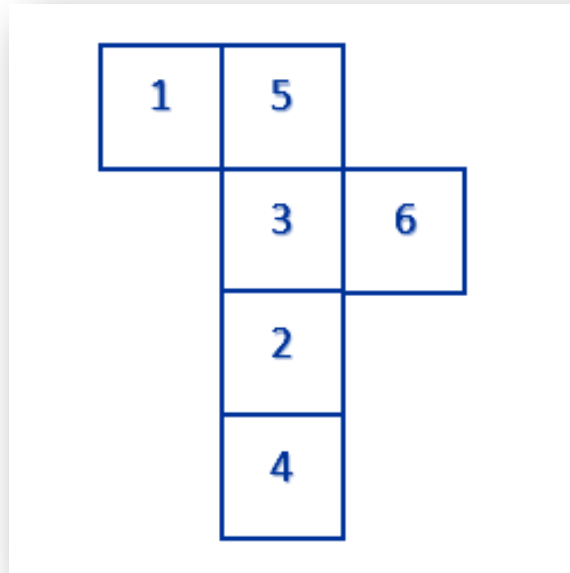
- (a) 11      (b) 2      (c) 13      (d) 15

3. There are 4 distinct rays in a plane having the same endpoint such as the figure below. How many different angles are formed?



- (a) 6      (b) 7      (c) 8      (d) 10

4. Below is a net of a cube. What number corresponds to the opposite side of 4?

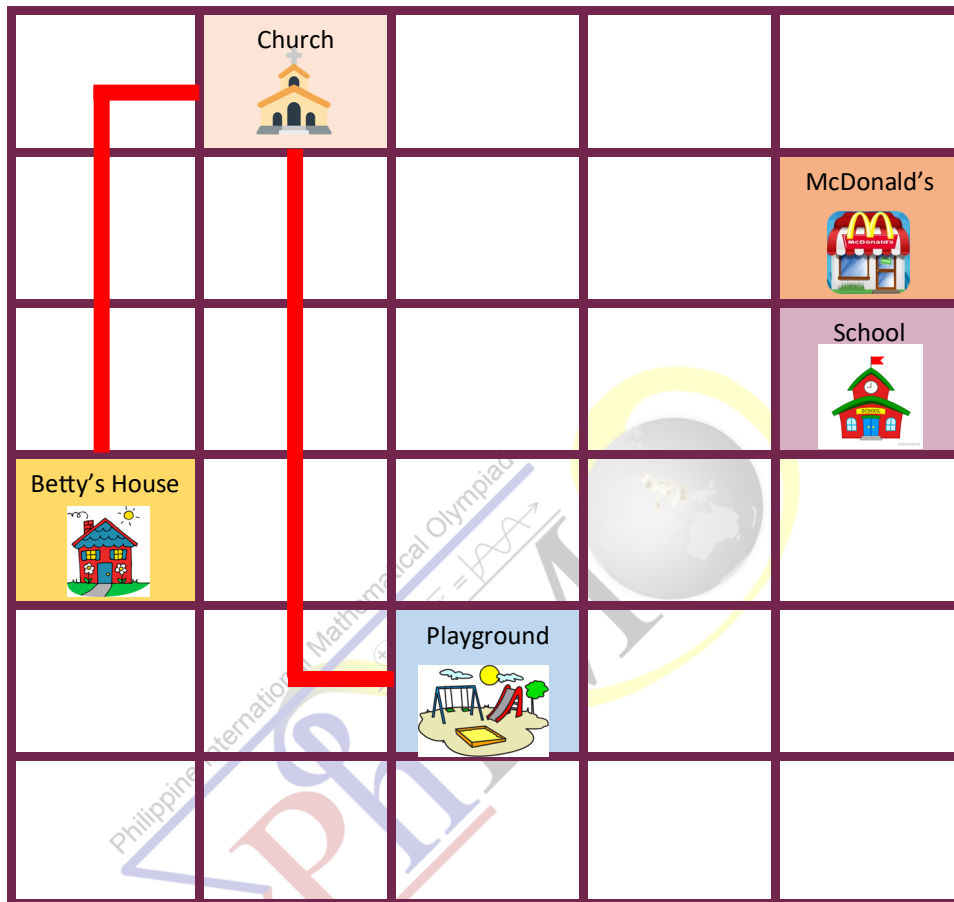


- (a) 1                      (b) 3                      (c) 5                      (d) 6

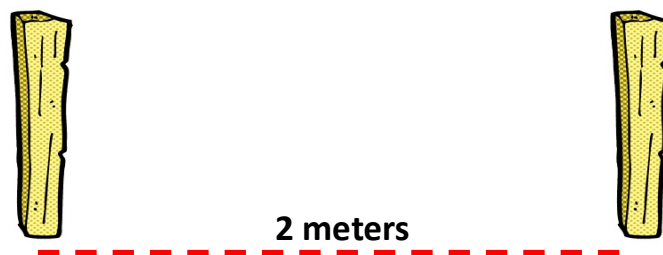
5. If the pattern 4, 8, 12, 16, 20, is continued, which of the following numbers would be one of the terms in the pattern?

- (a) 22                      (b) 30                      (c) 50                      (d) 60

6. The shortest route from Betty's House to the Church is 4 blocks, while the shortest route from the playground to the church is 5 blocks. How many blocks corresponds to the shortest route from Betty's House to McDonald's if you can only go up, down, to the right or to the left?
- (a) 6                      (b) 7                      (c) 8                      (d) 9

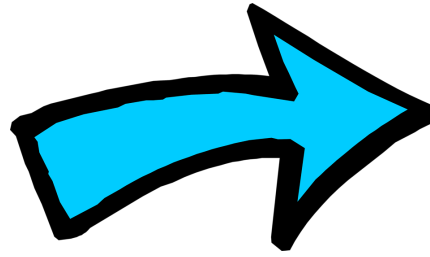


7. Equally spaced wooden posts are placed around the perimeter of a regular pentagonal field with side length equal to 10 meters. If the distance between two adjacent wooden posts is 2 meters, how many wooden posts were used?



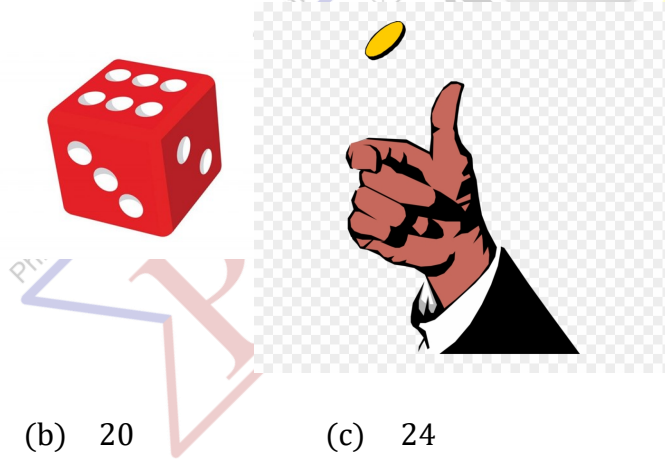
- (a) 10                      (b) 20                      (c) 25                      (d) 50

8. A runner can run 12 kilometres in 1 hour, how far can he run for  $7/4$  hours?



- (a) 20 km                      (b) 21 km                      (c) 22 km                      (d) 23 km

9. James rolls a die and tosses two coins. How many possible outcomes are there in all?



- (a) 12                      (b) 20                      (c) 24                      (d) 36

10. Suppose a coin is tossed three times, what is the probability of getting three tails?

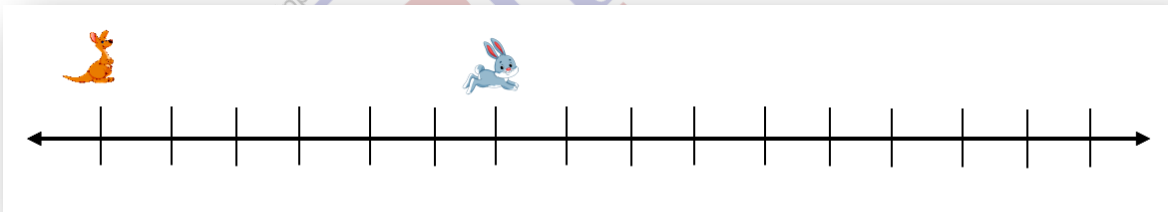
- (a)  $1/8$                       (b)  $1/4$                       (c)  $1/2$                       (d)  $3/8$

Part 2: 11<sup>th</sup> to 25<sup>th</sup> Open-Ended Questions

11. What is the missing number represented by the special character?

$$(\star \times 7) - (\star \times 2) = 95$$

12. A kangaroo is chasing a rabbit. The kangaroo starts at the 1st mark and jumps 4 meters every time while the rabbit starts at the 7th mark and jumps 3 meters every time. The distance between two adjacent marks is 1 meter. If they both started at the same time, how many jumps is required for the kangaroo to catch the rabbit?

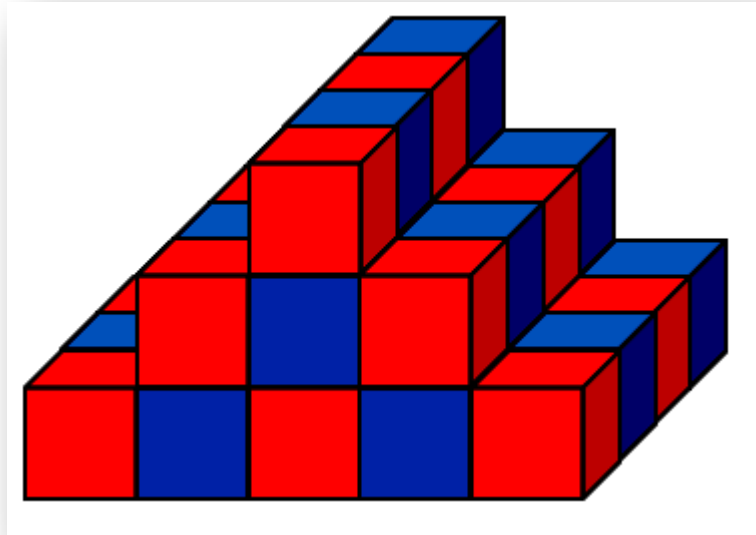


13. If “-” means “+”, “+” means “-”, “×” means “÷”, and “÷” means “×”. What number should be placed in the box to make the following number sentence correct?

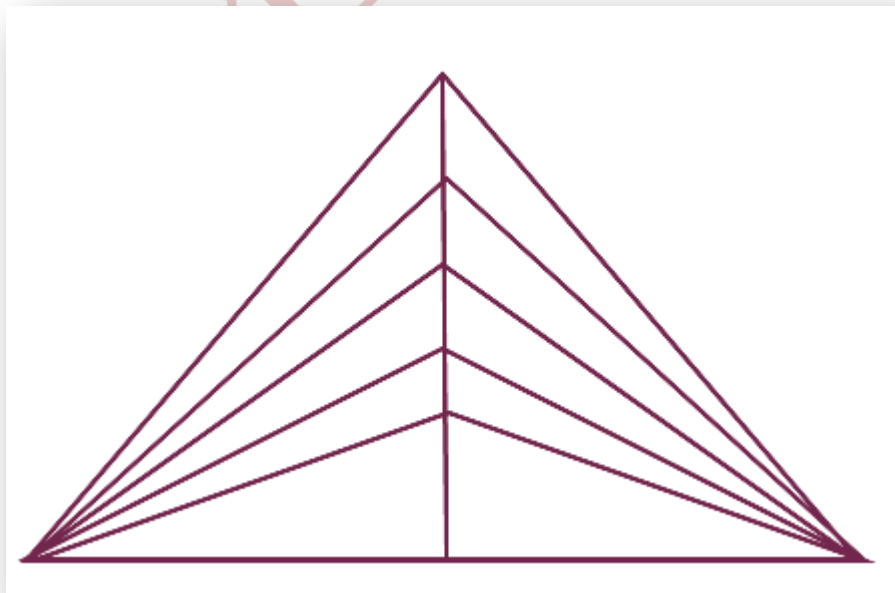
$$11 \div 7 - 92 \times 4 = \square \div 5$$

14. Amy made a new deck of 60 cards consisting of 4 suits – spades, hearts, clubs and diamonds. If there are equal number of cards for each suit, determine the minimum number of cards should be drawn to ensure that there is at least 1 card from each suit?

15. The blue and red blocks are stacked in an alternating position to form the figure below. How many blue blocks are there?

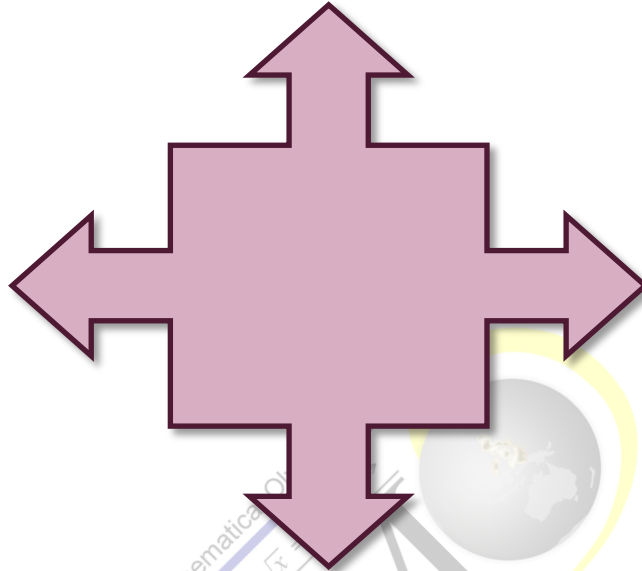


16. Find the number of triangles in the figure below.



17. What do you call a solid figure with no face, no vertex and no edge?

18. How many line of symmetry does the figure below have?



19. How many 2-digit numbers are there such that the units digit is greater than the tens digit?

20. Find the value of A.

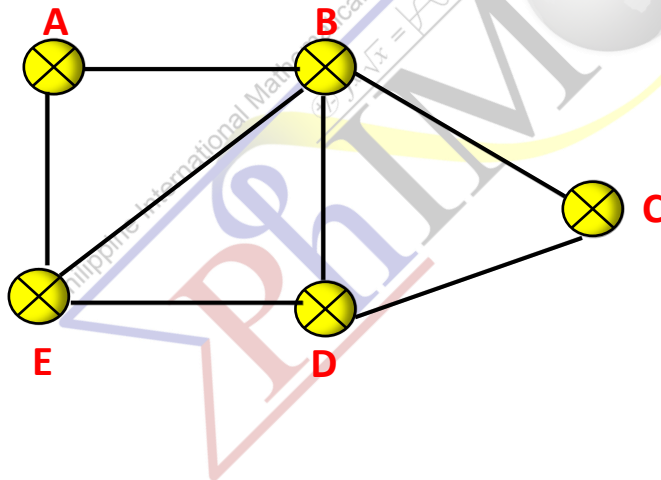
$$(A \times 15) + (2A \times 20) + (A \times 5) = 300$$



21. Observe the following pattern and write the number that should be put on the blank to make the equation correct.

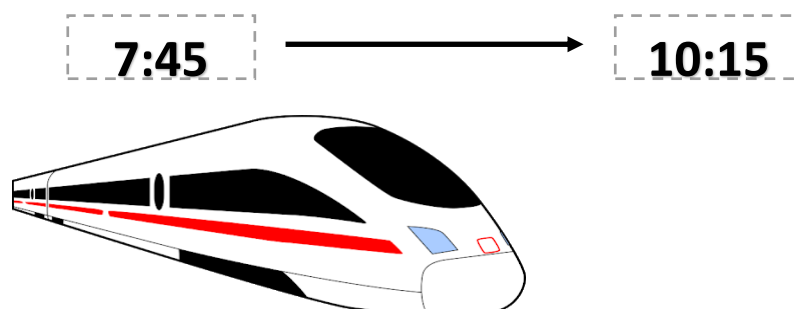
$$\begin{aligned}
 1 \times 8 + 1 &= 9 \\
 12 \times 8 + 2 &= 98 \\
 123 \times 8 + 3 &= 987 \\
 1234 \times 8 + 4 &= 9876 \\
 &\vdots \\
 123456789 \times 8 + 9 &= \underline{\hspace{2cm}}
 \end{aligned}$$

22. 5 towns are joined by a system of roads as shown:



How many ways are there to travel from town A to town C, if each town is passed exactly once?

23. A bullet train travels at a constant speed of 320 kilometers per hour. How far did the bullet train travelled if it left the station at 7:45 AM and reached its destination at 10:15 AM on the same day?



24. Kath is 16 years younger than Cathy. If the sum of their ages is 30, how old is Cathy?



25. A man on motorcycle can cover 45 kilometers in 50 minutes. How far can he travel in 1 hour?

