PAPER K

TCIMO | TERRY CHEW INSTITUTE OF MATHEMATICAL OLYMPIADS

SEAMO

Southeast Asian Mathematical Olympiad

SENIOR

1. Find the missing number.

? = [weight]

(A)　14　　　　　　　(B)　18　　　　　　　(C)　24

2. How many ways are there for the ant to return to its nest?

(A)　3　　　　　　　(B)　2　　　　　　　(C)　1

3. How many corners does this shape have?
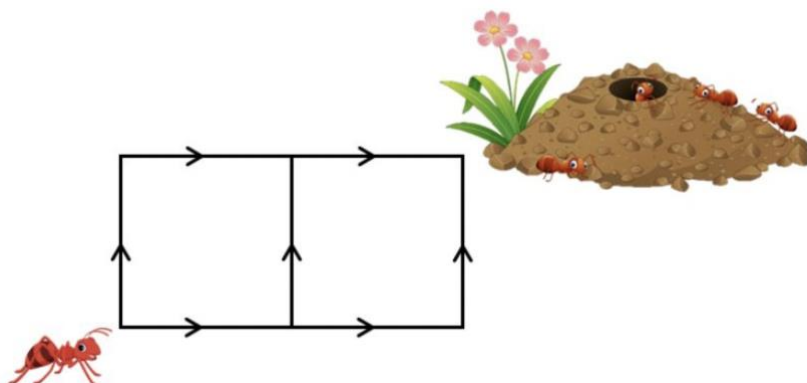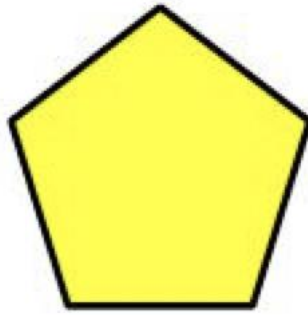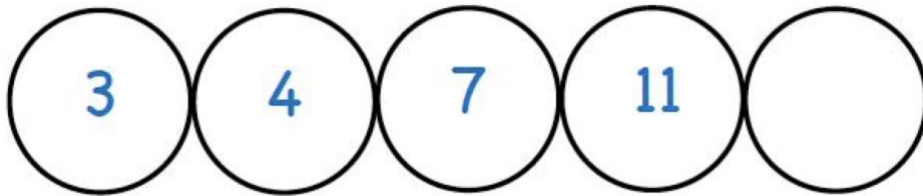

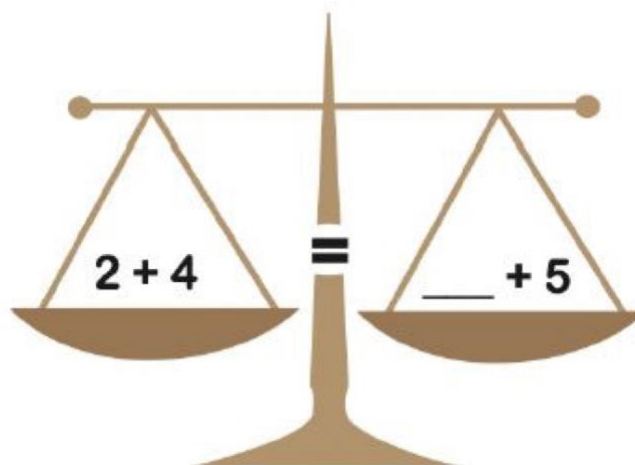(A)   3   (B)   4   (C)   5

4. Find the missing number.

(A)   16   (B)   17   (C)   18

5. Find the missing number.

$2 + 4 = \underline{\quad} + 5$

QUESTION	ANSWER	SOLUTION	TOPIC	LEVEL
1	C	4 oranges = 16 1 orange = 16 ÷ 4 = 4 2 oranges + 1 banana = 18 1 banana = 18 − 4 − 4 = 10 2 bananas + 1 orange = 10 + 10 + 4 = 24	Algebra	**Hard**
2	A	Follow the arrows and count the paths.	Shortest Path	**Easy**
3	C	Count the corners in the shape.	Geometry	**Easy**
4	C	The next term is the sum of the two previous terms (Fibonacci Series). 3 + 4 = 7 4 + 7 = 11 7 + 11 = 18	Patterns	**Medium**
5	1	Left hand side: 2 + 4 = 6 Right hand side: 1 + 5 = 6	Algebra	**Easy**

Level of difficulty refers to the expected level of difficulty for the question.	
Easy	more than 70% of candidates will choose the correct option
Medium	about 50–70% of candidates will choose the correct option
Medium/Hard	about 30–50% of candidates will choose the correct option
Hard	less than 30% of candidates will choose the correct option