

TEST

AMO Grade 2 Mock Test Paper 2

ANSWERS

SECTIONS

1. Sec A MCQs - 15 Questions
2. Sec B SAQs - 10 Questions

Section 1 : Sec A MCQs - 15 Questions

1 21

2 5

3 Carla

4 Saturday

5 14

6 15

7 40 m

8 40

9 400 ml

10 26

11 78

12 180

13 450

14 43

15 276

Section 2 : Sec B SAQs - 10 Questions

16 15

17 6

18 31

19 26

20 10

21 5

22 12

23 11

24 18

25 13

TEST

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SOLUTIONS

SECTIONS

1. Sec A MCQs - 15 Questions
2. Sec B SAQs - 10 Questions

Section 1 : Sec A MCQs - 15 Questions

1

The first picture has 4 blocks in the lower layer, 2 blocks in the second layer and 1 block in the upper layer. So, the total number of blocks in the first picture = $4 + 2 + 1 = 7$. There are three identical pictures, so the total number of blocks = $7 \times 3 = 21$.

2

There are 2 big triangles and 3 small triangles formed by overlapping triangles.
So, the total number of triangles is $2 + 3 = 5$.

3

Amy>Beth, Carla>Amy, David>Erwin, Beth> David
Carla>Amy>Beth>David>Erwin

4

Every one week or 7 days later will return to the same day.
There are 4 days from 28th July to 31st July; 31 days in August; 6 days from 1st September to 6th September.
There are $4 + 31 + 6 = 41$ days after the 27th of July, Sunday.
 $41 \div 7 = 5R6$ implies that 41 days later will be 5 weeks and 6 days after Sunday.
5 weeks after Sunday is still Sunday and 6 days after Sunday is **Saturday**.

5

Working backwards:

$$50 + 36 - 72 = 14$$

Numbers with their digits adding up to 5 can be obtained in the following ways:

One-digit number - 5 *1 number*

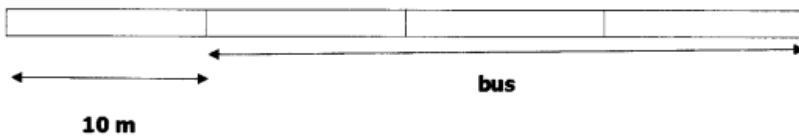
Two-digit numbers - 14, 23, 32, 41, 50 *5 numbers*

Three-digit numbers - 104, 113, 122, 131, 140, 203, 212, 221, 230 *9 numbers*

$1 + 5 + 9 = 15$ numbers are possible.

7

Using a visual representation:



Since Roy travels three-fourths of the whole journey by bus, he walks the remaining one-fourth of the whole journey by foot.

1 unit = 10 m

4 units = $10 \times 4 = 40$ m

8

Since a square is divided into 9 smaller squares, so is the area.

Area of each smaller square = $72 \div 9 = 8 \text{ m}^2$.

Therefore, the area of 5 such smaller squares = $5 \times 8 = 40 \text{ m}^2$

9

1st jug: $150 \times 3 = 450 \text{ ml}$

2nd jug: $50 \times 3 = 150 \text{ ml}$

The 2 jugs filled up $450 \text{ ml} + 150 \text{ ml} = 600 \text{ ml}$ of the bottle.

So, $1000 - 600 = 400 \text{ ml}$ more liquid can be poured into the bottle.

10

Since $A = 1, B = 2, C = 3, \dots, Y = 25, Z = 26$

$S = 19, M = 13, A = 1, R = 18, T = 20$

SMART represents the number 191311820.

Sum of digits = $1 + 9 + 1 + 3 + 1 + 1 + 8 + 2 + 0 = 26$

11

Hour hand crosses 6 even numbers, i.e. 2, 4, 6, 8, 10, 12 in a 12-hour period.

Minute hand crosses 6 even numbers, i.e. 2, 4, 6, 8, 10, 12 once every hour. Therefore in 12 hours, it crosses an even number for $12 \times 6 = 72$ times.

Thus, both hands cross an even number $72 + 6 = 78$ times altogether.

12

Regrouping strategy:

$$(4 + 16) + (24 + 36) + (44 + 56) = 20 + 60 + 100 = 180$$

13

$$\text{Total number of blades} = 150 \times 3 = 450$$

14

Double of 25 = 50, one third of 21 = 7

$$50 + 7 = 57$$

$$100 - 57 = 43$$

15

$$2 \text{ hundreds} = 200$$

$$5 \text{ more tens than } 20 = 5 \text{ tens} + 20 = 50 + 20 = 70$$

$$1 \text{ less than } 7 = 7 - 1 = 6$$

$$200 + 70 + 6 = 276$$

Section 2 : Sec B SAQs - 10 Questions

16

Let Alwin's score be 1 unit; Harry's and Sophia's score be 1 unit + 3 respectively:

$$1 \text{ unit} + (1 \text{ unit} + 3) + (1 \text{ unit} + 3) = 51$$

$$3 \text{ units} + 6 = 51$$

$$3 \text{ units} = 51 - 6 = 45$$

$$1 \text{ unit} = 45 \div 3 = 15$$

17

We need two numbers from 1 to 13 that add up to 15.

There are 6 possible combinations:

$2 + 13$, $3 + 12$, $4 + 11$, $5 + 10$, $6 + 9$, $7 + 8$

18

Since 31 is the common answer obtained after adding 4 and subtracting 4 from Charles' and David's numbers respectively, Roma must have guessed 31.

Student	Number Guessed	+4	-4
Alan	25	29	21
Charles	27	31	23
Beth	30	34	26
David	35	39	31

19

Kumar had 20 marbles at first.

Ayer won 4 rounds and so, Kumar gave Ayer $4 \times 3 = 12$ marbles.

Kumar won 6 rounds and so, he received $6 \times 3 = 18$ marbles from Ayer.

At the end of 10 rounds, he had $20 - 12 + 18 = 26$ marbles.

20

There are 8 possibilities that Chrissy has seen 2 number cards:

$(1,2)$, $(1,3)$, $(1,4)$, $(1,5)$, $(2,3)$, $(2,4)$, $(2,5)$, $(3,4)$

There are 2 possibilities that Chrissy has seen 3 number cards:

$(1,2,3)$, $(1,2,4)$

Thus, there are altogether $8 + 2 = 10$ different sets of numbers.

21

A pictorial representation would be helpful:

Since the ones and tens digits are reversed and the difference between the original number and the new number is 45, we notice that the difference between the tens digit and the ones digit must be 5.

	A	B
-	B	A
	4	5

Thus, B and A may be:

(0,5),(1,6),(2,7),(3,8),(4,9)

So, the corresponding numbers can be sets of any of the following numbers:

(50,05),(61,16),(72,27),(83,38),(94,49)

22

The strategy here is to identify which digit will be repeated in the 17th number and by how many times. Since the pattern repeats only for numbers 1, 2 and 3 making a group of 3 numbers each. We find that $17 \div 3 = 5 R2$.

So, after 5 sets i.e. the 16th number will have only 1's and the 17th number will have only 2's.

Also, take note that 1st set has one digit each, 2nd set has 2 digits each, and so on. So, the 6th set that includes the 17th number will have 6 digits each.

The 17th number will be 222222 and the sum of digits is $2 \times 6 = 12$.

23

$$30 \div 3 = 10$$

However, if Alice takes 10 chocolates, Ann and Alisha will take at most 9 chocolates each. The total number of chocolates will then be only $10 + 9 + 9 = 28$.

If Alice takes 11 chocolates, Ann and Alisha will take 10 and 9 chocolates respectively. The total number of chocolates will then be exactly $11 + 10 + 9 = 30$.

Thus, Alice could have taken at least 11 chocolates.

24

$$\text{Total number of balls at first} = 55 + 17 = 72$$

$$\text{Since each kid carried 4 balls, the number of kids} = 72 \div 4 = 18$$

25

Strategy: Make a table

Day	Pattern	Number of Jumps
1	10	10
2	$10 + 8$	18
3	$10 + 8 + 8 = 10 + 8 \times 2$	26
4	$10 + 8 + 8 + 8 = 10 + 8 \times 3$	34
5	$10 + 8 \times 4$	42
6	$10 + 8 \times 5$	50
7	$10 + 8 \times 6$	58
8	$10 + 8 \times 7$	66
9	$10 + 8 \times 8$	74
10	$10 + 8 \times 9$	82
11	$10 + 8 \times 10$	90
12	$10 + 8 \times 11$	98
13	$10 + 8 \times 12$	106

Thus, Patrick jumped more than 100 times on the 13th day.