

12 22

13 Tuesday

14 28

15 6

Section 2 : Section B Integers - 10 Questions

16 35

17 45

18 375

19 16

20 70

21 4

22 4

23 22

24 4

25 60

TEST

AMO Grade 3 Mock Test Paper 3

SOLUTIONS

SECTIONS

1. Section A MCQs - 15 Questions
2. Section B Integers - 10 Questions

Section 1 : Section A MCQs - 15 Questions

1

There are 16 blocks above B and 4 blocks below it so, the total number of blocks
 $= 16 + 4 + 1 = 21$ blocks

2

Number $\times 3 + 5 = 56$
 $56 - 5 = 51$, $51 \div 3 = 17$
Number $= 17$

3

Perimeter $= 2 \times (\text{length} + \text{breadth})$
Length + breadth $= 144 \div 2 = 72$ cm
Since length $= 3 \times$ breadth,
 $4 \times \text{breadth} = 72$ cm
Breadth $= 72 \div 4 = 18$ cm
Length $= 18 \times 3 = 54$ cm
Difference $= 54 - 18 = 36$ cm

4

4 weeks $= 28$ days later
17 days in September + 11 days in October
Thus, the 4th Monday will be 11th October

5

$$\begin{aligned}
&48 + 498 + 4998 + 49998 \\
&= (50-2) + (500-2) + (5000-2) + (50000-2) \\
&= 55550-8 = 55542
\end{aligned}$$

6

-

$$\begin{aligned}
1 \text{ Notebook} &= 1 \text{ Pen} + 15 \\
8 \text{ Notebooks} &= 8 \text{ Pens} + 120 \\
8 \text{ Notebooks} + 10 \text{ Pens} &= 480 \\
18 \text{ Pens} + 120 &= 480 \\
18 \text{ Pens} &= 480 - 120 = 360 \\
1 \text{ Pen} &= 360 \div 18 = 20 \\
1 \text{ Notebook} &= 1 \text{ Pen} + 15 = 20 + 15 = 35 \\
5 \text{ Notebooks} &= 35 \times 5 = \$175
\end{aligned}$$

7

Consider pages 1 to 100:
 2, 12, 22, 32, ..., 92 – 10 pages
 20, 21, 23, ..., 29 – there are 9 pages excluding 22 which was counted above
 Page 100 to 200:
 102, 112, 122, ..., 192 – 10 pages
 120, 121, 123, ..., 129 – there are 9 pages excluding 122 which was counted
 200 to 299 – 100 pages
 So, the book now has $300 - 10 - 9 - 10 - 9 - 100 = 162$ pages

8

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Since the sum is an odd number, one number must be an even number and the other an odd number.
 As both numbers are prime, one of them must be 2, the only even prime number.
 Thus, the other prime number must be $55 - 2 = 53$.
 Product = $53 \times 2 = 106$

9

If 1st number is 50, counting backwards, 25 will be the 26th number in the diagram.

There are 1 number in Row 1, 2 numbers in Row 2, 3 numbers in Row 3, and so on and so forth:

Row	Pattern	Total
1	1	1
2	1+2	3
3	1+2+3	6
4	1+2+3+4	10
5	1+2+3+4+5	15
6	1+2+3+4+5+6	21
7	1+2+3+4+5+6+7	28

As there are 21 only numbers up to Row 6 but 28 numbers up to Row 7, 25 (which is the 26th number) will fall in Row 7.

10

1-part: 5

2-part: 3

3-part: 1

5-part: 1

There are a total of 10 rectangles.

11

Since $A6B$ is divisible by 15, it is also divisible by 5. Thus, B can either be 0 or 5.
Since $A6B$ is an odd number, then $B=5$.

Also, given that $A+6+B=15$, so $A=4$.

$$A \times B = 5 \times 4 = 20$$

12

$$8 \oslash 9 = 8 \times 5 - 9 \times 2 = 40 - 18 = 22$$

13

Since they take a day off on every 4th and 5th day, every 20th day they will have a day off together.

$$20 \div 7 = 2 \text{ R } 6 \text{ or } 2 \text{ weeks and } 6 \text{ days}$$

So if the 20th day later is Monday today, 2 weeks before Monday was still Monday and 6 days before Monday was Tuesday.

Monday	Sunday	Saturday	Friday	Thursday	Wednesday	Tuesday
0	-1	-2	-3	-4	-5	-6

14

Weight of 13 chocolates = $1120 - 600 = 520$ grams

Weight of 1 chocolate = $520 \div 13 = 40$ grams

Original weight = 1120 grams

$1120 \div 40 = 28$ chocolates were in the box at first.

15

In the worst-case scenario, Jeena may take out 5 socks in 5 different colours in the first 5 picks. Therefore, only when the 6th sock is taken out, she will then have a pair of the same colour.

Section 2 : Section B Integers - 10 Questions

16

$X = 17$, $Y = 18$ so, $X + Y = 17 + 18 = 35$

18	13	14
11	15	19
16	17	12

17

Consider the following table:

Multiples of 7 less than 70	63	56	49	42	35	28	21
3 more	66	59	52	45	38	31	24
Remainder when divided by 4	2	3	0	1	2	3	0

18

We notice that a pattern repeats after 2 a, 3 b, 2 c and 1 d, a total of 8 letters.

$1000 \div 8 = 125$ sets

So, $125 \times 3 = 375$ 'b's will appear before the 1000th letter.

19

Let the current age of John be 1 unit,
 $1 \text{ unit} + 2 = 2 \times (1 \text{ unit} - 2)$
 $1 \text{ unit} + 2 = 2 \text{ units} - 4$
 $1 \text{ unit} = 6$ (current age)
 10 years later, John's age will be 16 years old.

20

Adding the two given equations, we get
 $4 \text{ 5-star} + 4 \text{ Kit Kat} + 4 \text{ Perks} = 145 + 135 = 280$
 $1 \text{ 5-Star} + 1 \text{ Kit Kat} + 1 \text{ Perk} = \$70$

21

Note that every set of $5 \times 2 = 10$ gives one zero in the end
 $25 \times 25 \times 6 \times 6 \times 36$
 $= 5 \times 5 \times 5 \times 5 \times 2 \times 3 \times 2 \times 3 \times 2 \times 3 \times 2 \times 3 \times 2 \times 3$
 As there are 4 sets of 5×2 , there will be 4 consecutive zeros.

22

Zack must have numbers 1, 5 and 7 to have a product of 35.
 $96 = 3 \times 4 \times 8$ or $2 \times 6 \times 8$
 If Tom has 3, 4 and 8 then Jim will have 2, 6 and 9 with a total of 17, which is incorrect.
 If Tom has 2, 6 and 8 then Jim will have 3, 4 and 9 with a total of 16, which is correct.
 Thus, the second largest number is 4.

23

44 km in 4 litres $\rightarrow$ 11km in 1 litre of petrol
 So, to travel 22km, a car used 2 litres of petrol.
 Also, one-third of 6 = 2
 Amount of petrol left in the car = $6 - 2 - 2 = 2$ litres
 Distance the car can travel now = $2 \times 11 = 22$ km

24

$\frac{2}{5}$ of juice jug = 1 glass

2 juice jugs = 5 glasses

4 juice jugs = 10 glasses

25

For every 5 daffodils, there are 8 roses,

$96 \div 8 = 12$ sets of 8 roses

Thus, there should be $5 \times 12 = 60$ daffodils.