

# International Foundation Mathematics Olympiad(IFMO)

## CLASS 8

### WORKSHEET – 5

### SECTION-A ( Logical Reasoning )

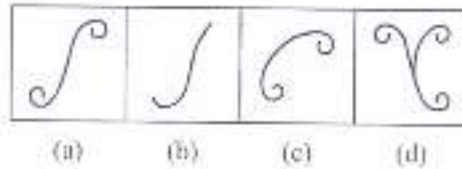
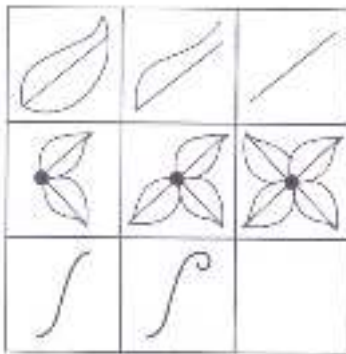
1. If first ten letters of the given alphabet is reversed then which letter will be 4<sup>th</sup> letter to the right of L when A to Z are arranged in sequence?

- a) O c) Q
- b) P d) R

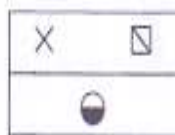
2. Choose the odd numeral pair/group.

- a) 119-17 c) 158-24
- b) 147-21 d) 203-29

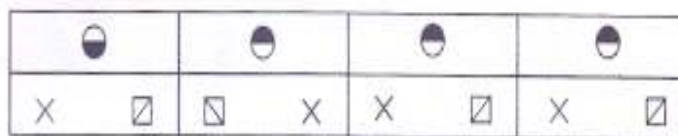
3. In the following question, study the given matrix, and find the correct option for the question mark from the given four options.



4. In the following question, choose the correct water image of the figure (X) from the given four alternatives.



(X)



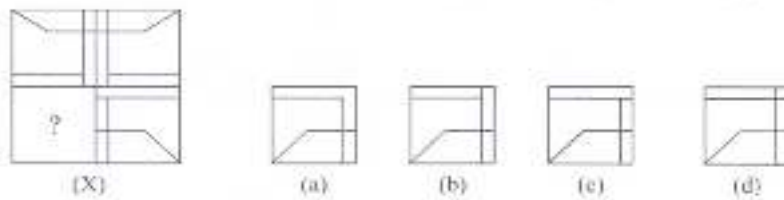
(a)

(b)

(c)

(d)

5. In the following problem, select a figure from amongst the four options which when placed in the blank space of figure (X) would complete the pattern.



6. In a coding language STOVE is written as FNBLK then how will VOTES be coded in that language?

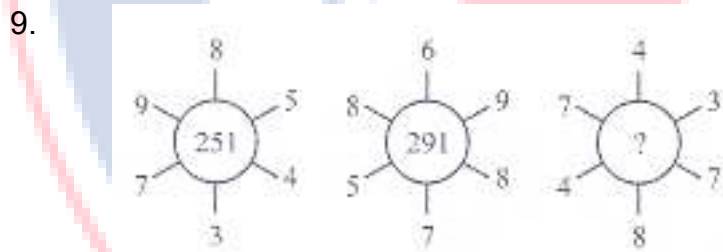
- a) LBKNF                                      c) LNBKF  
 b) LBNKF                                      d) None of these

7. Nitu leave from her house, she first walks 20 m in North-west direction and then 20 m in South west direction. Next she walks 20 m in south east direction. At last she turns towards her house. In which direction is she moving?

- a) North-west                                      c) South-east  
 b) North-east                                      d) None of these

8. 40320, 5760, 960, 192, 48, .....?

- a) 14    c) 18  
 b) 16    d) 22



- a) 266    c) 356  
 b) 256    d) None of these

10. How many pair of successive numbers are in the given series whose product is an even number?

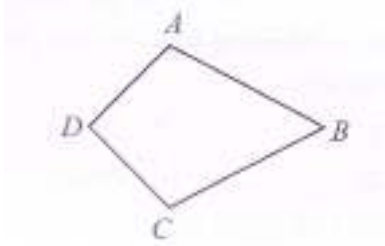
6 1 4 6 3 5 1 7 2 6 3 5 7 1 8 3 7 5

- a) 6    c) 8  
 b) 7    d) 9

**SECTION-B ( Day to Day Mathematics )**

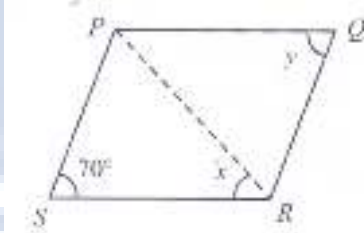
11. One candle was guaranteed to burn for 6 hours, the other for 2 hours. They were both lit at same times. After some time one candle was twice as long as the other. For how long had they been burning?
- a) 3 hours  
b) 6 hours  
c)  $\frac{4}{3}$  hours  
d)  $\frac{3}{2}$  hours
12. A cord of length  $58\frac{1}{2}$ m has been cut into 26 pieces of equal length. What is the length of each piece?
- a)  $2\frac{1}{4}$  m  
b)  $\frac{32}{75}$  m  
c)  $\frac{64}{75}$  m  
d)  $\frac{8}{15}$  m
13. What is the greatest number of four digits which is a perfect square?
- a) 9801  
b) 9816  
c) 9824  
d) 9864
14. The perimeter of a square field is 76m. What is its area?
- a)  $324\text{m}^2$   
b)  $289\text{m}^2$   
c)  $361\text{m}^2$   
d)  $329\text{m}^2$
15. Find the least number which should be added to 500, in order to make the 500, a perfect cube.
- a) 128  
b) 63  
c) 12  
d) 229
16. What sum will become Rs. 9724.05 in 2 years if the rate of interest is 10% compounded half yearly?
- a) Rs. 6000  
b) Rs. 6800  
c) Rs. 7200  
d) Rs. 8000
17. What is the quotient if  $5x^3 - 4x^2 + 3x + 18$  is divided by  $3-2x + x^2$ ?
- a)  $5x - 6$   
b)  $5x + 6$   
c)  $6x - 5$   
d)  $6x + 5$
18. A grand father is ten times older than his grandson. He is then also 54 years older than him. What is the difference of their present ages?
- a) 54 years  
b) 45 years  
c) 50 years  
d) 52 years

19. In the adjoining figure ABCD,  $AB=DC$  and  $DC = BC$  and,  $\angle ADC = 40^\circ$  and  $\angle BCD = 140^\circ$ , then,  $\angle ABC =$



- a)  $60^\circ$
- b)  $70^\circ$
- c)  $40^\circ$
- d)  $50^\circ$

20. PQRS is a parallelogram and  $\angle SPR = 50^\circ$ , then find y.



- a)  $70^\circ$
- b)  $110^\circ$
- c)  $50^\circ$
- d)  $130^\circ$

21. ABCD is a quadrilateral field in which the diagonal BD is 36m.  $AL \perp BD$  and  $CM \perp BD$  such that  $AL = 19$  m and  $CM= 11$  m. What is the area of the field?

- a)  $520 \text{ m}^2$
- b)  $540 \text{ m}^2$
- c)  $560 \text{ m}^2$
- d)  $570 \text{ m}^2$

22. How many planks of size  $2\text{m} \times 25 \text{ cm} \times 8 \text{ cm}$  can be prepared from a wooden block  $5 \text{ m}$  long  $70 \text{ cm}$  broad and  $32 \text{ cm}$  thick?

- a) 28
- b) 32
- c) 36
- d) 42

23. In a box of 100 electric bulbs, 8 bulbs are defective. One bulb is taken out at random from the box. What is the probability that the bulb drawn is not defective?

- a)  $\frac{2}{25}$
- b)  $\frac{1}{4}$
- c)  $\frac{23}{25}$
- d)  $\frac{1}{25}$

24. A factory requires 42 machines to produce a given number of articles in 56 days. How many machines would be required to produce the same number of articles in 48 days?

a) 40

c) 48

b) 46

d) 49

25. A pipe can fill a cistern in 9 hours. Due to a leak in its bottom, the cistern fills up in 10 hours. If the cistern is full, in how much time will it be emptied by the leak?

a) 60 hours

b) 70 hours

c) 80 hours

d) 90 hours

**ANSWER IFMO CLASS 8 – WORKSHEET - 5**

<b>1</b>	<b>B</b>	<b>2</b>	<b>C</b>	<b>3</b>	<b>A</b>	<b>4</b>	<b>C</b>	<b>5</b>	<b>B</b>	<b>6</b>	<b>B</b>	<b>7</b>	<b>B</b>	<b>8</b>	<b>B</b>	<b>9</b>	<b>B</b>	<b>10</b>	<b>D</b>
<b>11</b>	<b>C</b>	<b>12</b>	<b>A</b>	<b>13</b>	<b>A</b>	<b>14</b>	<b>C</b>	<b>15</b>	<b>C</b>	<b>16</b>	<b>D</b>	<b>17</b>	<b>B</b>	<b>18</b>	<b>A</b>	<b>19</b>	<b>C</b>	<b>20</b>	<b>A</b>
<b>21</b>	<b>B</b>	<b>22</b>	<b>A</b>	<b>23</b>	<b>C</b>	<b>24</b>	<b>D</b>	<b>25</b>	<b>D</b>										