# 12<sup>th</sup> *iOM* ▼ 19
## International Olympiad of
## Mathematics

## CLASS : 6 SAMPLE QUESTIONS

*The Actual Question Paper Contains 50 Questions. The Duration of the Test Paper is 60 Minutes.*

1. The difference of the largest and the smallest 5-digit numbers formed by the digits 6,0,9,5 where 0 repeated twice is:
   (A) 46431      (B) 49250
   (C) 39996      (D) 39600

2. The least number which when decreased by 7 is exactly divisible by 8, 14, 24 and 36, is:
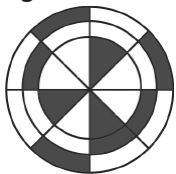   (A) 497      (B) 504
   (C) 511      (D) 490

3. The sum $\left( 12\frac{1}{4} + 12\frac{1}{4} + 12\frac{1}{4} + 12\frac{1}{4} \right)$ is same as:

   (A) $(12 \times 4)$

   (B) $(12 \times 4) + 1$

   (C) $(12 \times 4) + \frac{1}{4}$

   (D) $\left( 12 \times \frac{1}{4} \right) + 1$

4. If 48 men can do a piece of work in 96 days, then to finish the same work in 72 days, how many more men are needed?
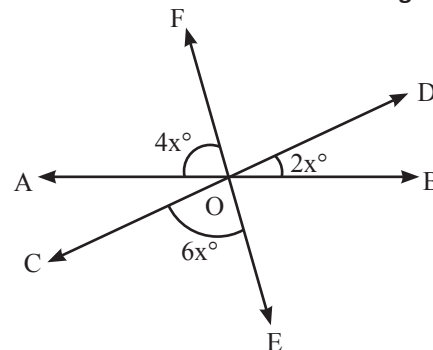   (A) 12    (B) 16    (C) 18    (D) 24

5. What is the product of the fractions represented by the shaded parts and the unshaded parts in the given figure?
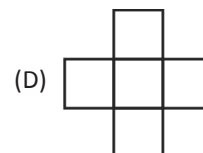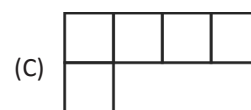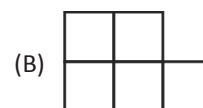
   

   (A) $\frac{16}{81}$      (B) $\frac{8}{49}$
   (C) $\frac{12}{25}$      (D) $\frac{15}{64}$

6. Find the measure of $\angle$ DOE in the given figure.

   

   (A) 80°      (B) 90°
   (C) 100°      (D) 70°

7. Which one of the following shapes, made of five same unit squares, has the smallest perimeter?

   (A) 

   (B) 

   (C) 

   (D) 

8. If 50% of a number (*x*) is equal to $\frac{2}{5}$ of another number (*y*), what is the ratio of first number (*x*) to the second number (*y*)?
   (A) 3 : 4      (B) 4 : 5
   (C) 5 : 6      (D) 5 : 8

**9.** In a certain code 'MINUTE' is coded as $3*£@\#\wedge$ and 'HOUR' is coded as $5?@\phi$, then how is 'ROUTINE' written in this code?

(A) $\phi\wedge£3@\#?$

(B) $3\phi@\#*£\wedge$

(C) $\phi5\#\wedge£5*$

(D) $\phi?@\#*£\wedge$

**10.** Figures (A) and (B) show the consecutive folds of paper. Figure (C) shows the cut on the folded paper. Choose one figure from the four options that is the unfolded form of the sheet.



(A)         (B)         (C)
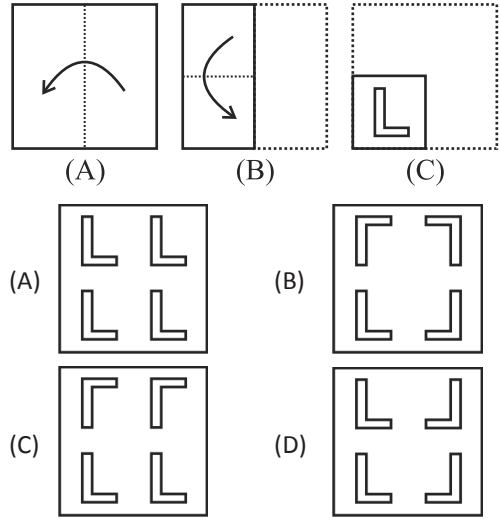


| | ANSWERS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1. (A) | 2. (C) | 3. (B) | 4. (B) | 5. (D) | 6. (B) | 7. (B) | 8. (B) | 9. (D) | 10. (B) |