Q1: Find $x.y$ if $x^2.y^2 = 36$

A) 12 **B)** 6 **C)** 9 **D)** 18

Q2: Evaluate $\left(1+\frac{1}{2}\right)\times\left(1+\frac{1}{3}\right)\times\left(1+\frac{1}{4}\right)\ldots\times\left(1+\frac{1}{25}\right)$

A) 13 **B)** 14 **C)** 25 **D)** 26

Q3: Evaluate $\sqrt{\frac{1}{4}+\frac{1}{9}-\frac{1}{3}}$

A) $\frac{1}{4}$ **B)** $\frac{1}{6}$ **C)** $\frac{1}{8}$ **D)** $\frac{1}{12}$

Q4: Evaluate $\frac{\sqrt{4^3+4^3+4^3+4^3}}{\sqrt{2^3+2^3+2^3+2^3}}$

A) $\sqrt{2}$ **B)** $2\sqrt{2}$ **C)** $3\sqrt{2}$ **D)** $4\sqrt{2}$

Q5: Evaluate $\frac{1}{1+\frac{1}{3}}+\frac{1}{1-\frac{1}{3}}$

A) 0 **B)** $\frac{1}{4}$ **C)** $\frac{1}{3}$ **D)** $\frac{9}{4}$

Q6: $\sqrt{\frac{1}{5}\times 80}+\sqrt{3^2+4^2}=?$

A) 6 **B)** 9 **C)** 12 **D)** 11

Q7: Simplify $\frac{15^8\times 10^4}{2^4\times 3^8\times 5^{10}}$

A) $\frac{9}{5}$ **B)** $\frac{15}{4}$ **C)** $\frac{25}{2}$ **D)** 25

Q8: Evaluate $\frac{0.48}{0.0016}\times\frac{0.00012}{0.003}$

A) 6 **B)** 12 **C)** 24 **D)** 36

Q9: Find $x+y$ if $\frac{x}{3}=\frac{5}{4}=\frac{y}{11}$

A) $\frac{35}{2}$ **B)** $\frac{37}{2}$ **C)** 14 **D)** 36

Q10: If $x+y=10$, $x.y=24$ then, evaluate $\frac{1}{x}+\frac{1}{y}+\frac{7}{12}$

A) 1 **B)** $\frac{1}{12}$ **C)** 2 **D)** $\frac{5}{12}$

Q11: A fruit seller had some apples. He sold 40% apples and still has 420 apples. In the beginning he had:

A) 588 apples **B) 600 apples**
C) 672 apples **D) 700 apples**

Q12: Which of the following is correct?

A) $\frac{17}{18} < \frac{35}{36} < \frac{53}{54}$ **B)** $\frac{35}{36} < \frac{17}{18} < \frac{53}{54}$

C) $\frac{53}{54} < \frac{35}{36} < \frac{17}{18}$ **D)** $\frac{17}{18} < \frac{53}{54} < \frac{35}{36}$

Q13: It takes 45 minutes to prepare 30 cakes. How many cakes can be made in 24 minutes?

A) 6 **B) 12** **C) 16** **D) 18**

Q14: $\left(1+\frac{1}{\sqrt{9}}\right)\times\left(1+\frac{1}{\sqrt{16}}\right)\times\left(1+\frac{1}{\sqrt{25}}\right)=?$

A) 2 **B) 1** **C) 0** **D) 4**

Q15: The interior angles of a triangle are proportional by 4,7 and 9. Find the measure of the greatest angle of the triangle.

A) 63 **B) 72**
C) 81 **D) 584**

Q16: The average of ages of 15 boys is 12 and that of 5 girls is 8. Find the average age of 20 students.

A) 9.5 **B) 10** **C) 10.5** **D) 11**

Q17: Simplify $\frac{1.3}{0.013}+\frac{0.12}{0.012}+\frac{0.8}{0.004}$

A) 210 **B) 310**
C) 410 **D) 510**

Q18: $\frac{\left(2-\frac{1}{2}\right)+\left(\frac{1}{2}+2\right)}{\left(4+\frac{5}{4}\right)-\left(4+\frac{1}{4}\right)}=?$

A) $\frac{1}{4}$ **B)** 4 **C)** 1 **D)** 2

Q19: Two students appeared in an examination. One of them got 9 marks more than the other and his marks was 56% of the sum of their marks. What is the ratio of the marks obtained by them?

A) $\frac{53}{62}$ **B)** $\frac{25}{34}$ **C)** $\frac{33}{42}$ **D)** $\frac{43}{52}$

Q20: Ahmed can do a work in 15 days and Saeed in 20 days. If they work on it together for 4 days, then what will be the fraction of the work that is left?

A) $\frac{1}{4}$ **B)** $\frac{1}{10}$ **C)** $\frac{7}{15}$ **D)** $\frac{8}{15}$

Q21: A batsman scored 110 runs which included 3 fours and 8 sixes. What percent of his total score did he make by running between the wickets?

A) 45% **B)** $45\frac{5}{11}\%$ **C)** $54\frac{6}{11}\%$ **D)** 55%

Q22: Ali can run 0.6 km in one hour. How many meters can Ali run in one minute?

A) 0.1 **B) 1** **C) 10** **D) 100**

Q23: The dimensions of a rectangle are proportional to 2 and 3. If the area of this rectangle is $1014 cm^2$**, then find its perimeter.**

A) 96 cm **B) 116 cm**
C) 120 cm **D) 130 cm**

Q24: $2013\times\left(2013^{2013}\right)$

A) 2013^{2014} **B)** 2013^{4026}
C) 2014^{2013} **D)** 4026^{2013}

Q25: If $\frac{1}{5}\left(3x+\frac{15}{4}\right)-\frac{1}{4}\left(\frac{4x}{5}-3\right)=\frac{7}{2}$ **then what is the value of** x **?**

A) -5 **B) -12.5** **C) 12.5** **D) 5**

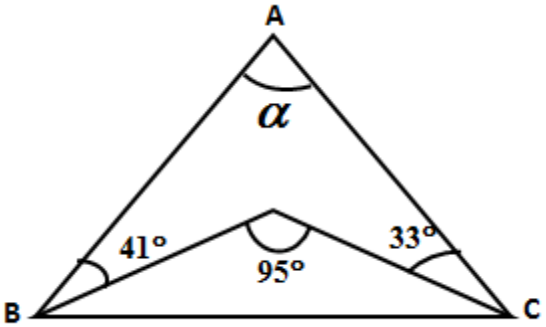
Q26: If $x+y=12$ **and** $x-y=-4$ **then find the value of** x^2+y^2

A) 48 **B) 64** **C) 80** **D) 96**

Q27: A family consists of two grandparents, two parents and three grandchildren. The average age of the grandparents is 67 years, that of the parents is 35 years and that of the grandchildren is 6 years. What is the average of the ages of the family?

A) $28\frac{4}{7}$ **B)** $31\frac{5}{7}$ **C)** $32\frac{1}{7}$ **D)** $19\frac{1}{5}$

Q28: What is the measure of α ?



A) $21°$ **B)** $41°$ **C)** $37°$ **D)** $53°$

Q29: $a=-2$, $b=2-a$ and $c=-8+b$ are given. Find c.

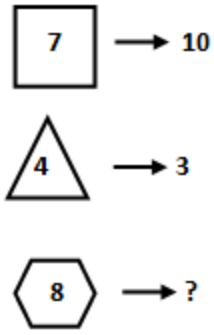
A) –6 **B) –5** **C) –4** **D) –2**

Q30: A group of students and adults is at a park. The number of adults is eight more than twice the number of the students in the park. An adult ticket costs Rs.12 and the amount of money collected from the adults is Rs. 600.

How many students are there in the park?

A) 21 **B) 22** **C) 23** **D) 24**

Q31: The numbers arranged according to a certain rule. Find the number indicated by question mark.

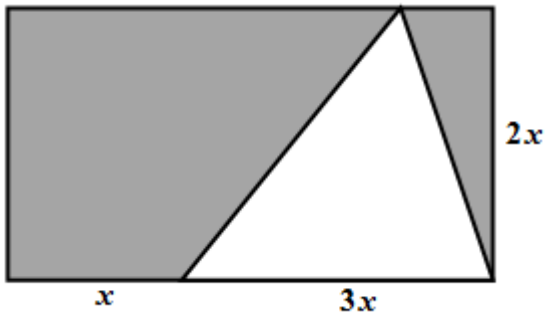


A) 7 **B) 11** **C) 12** **D) 16**

Q32: One of the factors of a number is 6 times of the other one. What is the sum of factors if the number is 216?

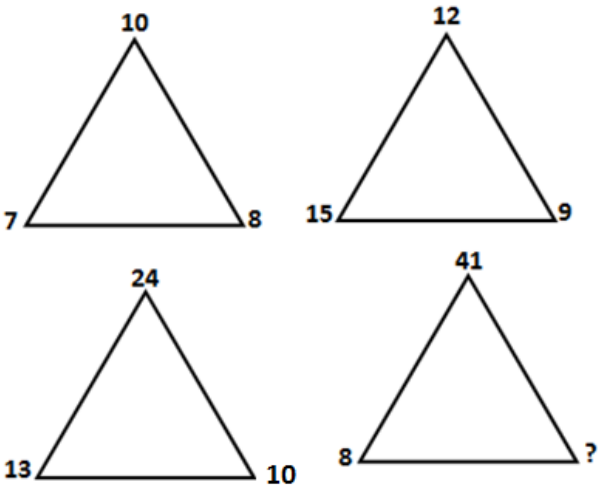
A) 42 **B) 49** **C) 35** **D) 28**

Q33: In the diagram, lengths are shown. The area of the shaded region is:



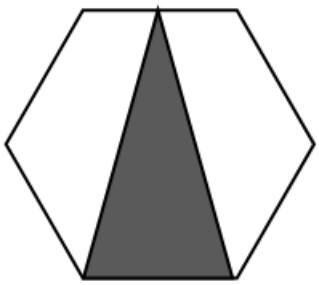
A) $2x^2$ **B)** $3x^2$ **C)** $4x^2$ **D)** $5x^2$

Q34: The numbers below are placed at the corners with a specific rule, find the number indicated by '?'.



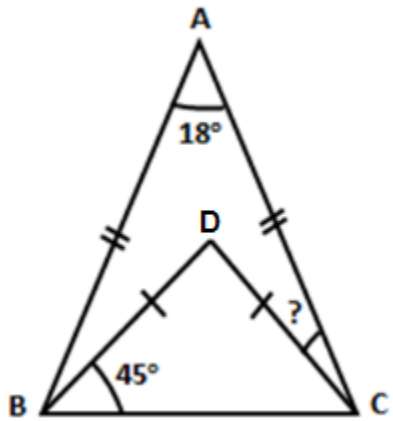
A) 5 **B) 8** **C) 11** **D) 13**

Q35: The area of the shaded triangle, written as a fraction of the regular hexagon is:



A) $\frac{1}{6}$ **B)** $\frac{1}{5}$ **C)** $\frac{1}{4}$ **D)** $\frac{1}{3}$

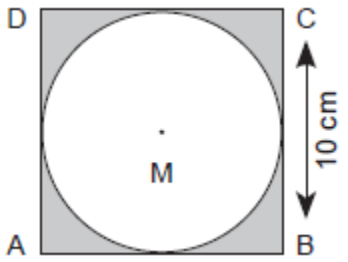
Q36: In triangle ABC, $|AB| = |AC|$, $|BD| = |BC|$, $\angle DBC = 45°$ **and** $\angle BAC = 18°$ **are given**



What is the measure of angle ACD**?**

A) 29 **B) 33** **C) 36** **D) 40**

Q37: Find the area of the shaded region if ABCD is a sqaure. $(\pi = 3)$



A) $28cm^2$ **B)** $30cm^2$
C) $35cm^2$ **D)** $25cm^2$

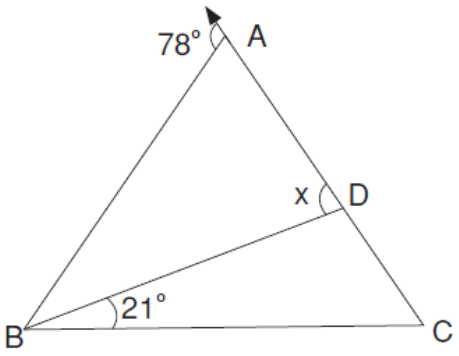
Q38: If $\begin{pmatrix} \frac{1}{a}+\frac{1}{b}=\frac{1}{2} \\ \frac{1}{b}+\frac{1}{c}=\frac{2}{3} \\ \frac{1}{c}+\frac{1}{a}=\frac{5}{6} \end{pmatrix}$ **then,** $\frac{1}{a}+\frac{1}{b}+\frac{1}{c}=?$

A) 2 **B)** $\frac{3}{2}$ **C)** 1 **D)** $\frac{5}{2}$

Q39: The age of Rizwan Khan is 16 more than the sum of ages of his two sons. After how many years the age of father will be 8 more than the sum of ages of his children?

A) 6 **B) 8** **C) 12** **D) 16**

Q40: In ΔABC, $|AB| = |AC|$
Find the measure of x **?**



A) 60^o **B)** 63^o **C)** 66^o **D)** 70^o

Q41: Simplify $-\left(\frac{\frac{a}{b}-\frac{b}{a}}{\frac{b}{a}-\frac{a}{b}}\right)$

A) $\frac{a}{b}$ **B)** $\frac{b}{a}$ **C)** 1 **D)** -1

Q42: Fareed is 4 times as old as his niece, Seema. Ten years from now, he will be twice as old as she will be. What is the sum of ages of Fareed and Seema?

A) 25 **B) 30** **C) 35** **D) 40**

Q43: If $x = 0.8$, $y = 1.6$ and $z = 0.2$ then what is the value of $\frac{x.y}{z}$?

A) 4.8 B) 6 C) 6.2 D) 6.4

Q44: Simplify $\frac{1}{6}+\frac{7}{12}+\frac{11}{24}$

A) $\frac{23}{12}$ B) $\frac{29}{24}$ C) $\frac{25}{12}$ D) $\frac{29}{12}$

Q45: Mary, who is sixteen years old, is four times as old as her brother. How old will Mary be when she is twice as old as her brother?

A) 16 B) 20 C) 22 D) 24

Q46: If the number $4\times6\times6\times4\times3$ is written in the form n^3 , where n is a natural number, then what is n ?

A) 12 B) 24 C) 18 D) 9

Q47: The numbers arranged according to a certain rule. Find the number indicated by question mark.

$9 \blacktriangle 8 \rightarrow 1$

$6 \blacktriangle 4 \rightarrow 8$

$10 \blacktriangle 7 \rightarrow ?$

A) 15 B) 24 C) 27 D) 33

Q48: Which of the following cannot be the value of A in given order?

$\frac{3}{13} \le \frac{A}{26} < \frac{18}{52}$

A) 6 B) 7 C) 8 D) 9

Q49: An item is sold for \$52500 after a 5% mark-up over its last year's price. Find the last year's price of the item?

A) \$ 57500 B) \$ 580000

C) \$ 50000 D) \$ 55000

Q50: Evaluate $\frac{1}{2}-\frac{1}{3}+\frac{1}{2}-\frac{1}{3}+\frac{1}{2}-\frac{1}{3}+\ldots\ldots\ldots$ if it contains 101 terms.

A) $\frac{49}{6}$ B) $\frac{53}{6}$ C) $\frac{103}{6}$ D) $\frac{50}{6}$