Q1: Evaluate $\left(8^2+6^2\right)-7^2$

A) 49 **B)** 47 **C)** 7^2 **D)** 51

Q2: $\frac{K-3}{10}$ is equivalent to $\frac{1}{2}$. Find the value of K.

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

Q3: $\left(3\frac{1}{2}-\frac{2}{3}\right)\times\frac{4}{5}+\frac{1}{5}\div\frac{1}{2}$

A) 8/7 **B)** 8/3 **C)** 8/5 **D)** 11/3

Q4: Which of the following is correct?

A) $\frac{7}{9}<\frac{35}{43}<\frac{5}{6}$ **B)** $\frac{5}{6}<\frac{35}{43}<\frac{7}{9}$

C) $\frac{35}{43}<\frac{7}{9}<\frac{5}{6}$ **D)** $\frac{35}{43}<\frac{5}{6}<\frac{7}{9}$

Q5: Which of the following rational number is between $\frac{1}{15}$ and $\frac{1}{16}$

A) $\frac{31}{440}$ **B)** $\frac{31}{480}$ **C)** $\frac{30}{490}$ **D)** $\frac{1}{17}$

Q6: Find the value of $\frac{(a-b)^{(a-b)}}{(a-b)}$ if $a=2$ and $b=-2$

A) 4^4 **B)** 4^3 **C)** 4^2 **D)** 4

Q7: What is the sum of 11th prime number and 13th positive odd number?

A) 54 **B)** 55 **C)** 56 **D)** 57

Q8: Evaluate

$1+2+3+\ldots\ldots\ldots\ldots\ldots+98+99+100-99-98-\ldots\ldots-3-2-1$

A) 48000 **B)** 12345 **C)** −100 **D)** 100

Q9: If $a=\frac{1}{0.05}, b=\frac{1}{0.02}$ and $c=\frac{3}{0.12}$ then which one of the following is correct?

A) $a<b<c$ **B)** $c<a<b$

C) $a<c<b$ **D)** $c<b<a$

Q10: Evaluate $\frac{\left(\frac{1}{3}+\frac{1}{2}\right)}{\left(1-\frac{1}{2}\right)}+1=?$

A) $\frac{1}{3}$ **B)** $\frac{3}{5}$ **C)** $\frac{8}{3}$ **D)** 1

Q11: **Evaluate** $\dfrac{0.3+0.03+0.003+0.0003}{9.9-(1.1+2.2+3.3)}$

A) 0.101 **B)** 1.01 **C)** 1.001 **D)** 1.11

Q12: **Sana reads an average of 35 pages per day. If she reads a book of 286 pages at this speed, how many pages will she read on the last day?**

A) 12 **B)** 17 **C)** 6 **D)** 16

Q13: **A football team won 9 games and lost 4 games. Find the percentage of lost games of the team if 12 games were drawn (tied)?**

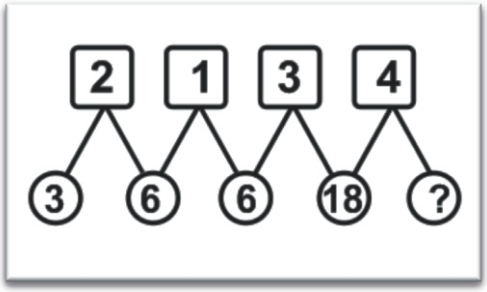
A) 16% **B)** 20% **C)** 25% **D)** 30%

Q14: **Find the answer when you divide** 123123123 **by** 123

A) 111000 **B)** 1001001

C) 1010101 **D)** 1001100

Q15: **If there is a rule between the following numbers then which one of the following number stands for the question mark?**



A) 72 **B)** 38 **C)** 22 **D)** 9

Q16: **Simplify** $\dfrac{60}{81}\times\dfrac{49}{144}\times\dfrac{243}{168}\times\dfrac{2}{35}$

A) $\dfrac{1}{24}$ **B)** $\dfrac{1}{48}$ **C)** $\dfrac{1}{12}$ **D)** $\dfrac{1}{60}$

Q17: $(35\times10)+20=A$ **and** $(80\mid16)-4=B$

What is $A+B$ **?**

A) 371 **B)** 345 **C)** 287 **D)** 145

Q18: $K=\dfrac{2}{3}+\dfrac{4}{6}+\dfrac{8}{12}+\dfrac{16}{24}+\dfrac{32}{48}$ **and**

$L=\dfrac{1}{2}+\dfrac{2}{4}+\dfrac{4}{8}+\dfrac{8}{16}+\dfrac{16}{32}$

Which of the following is incorrect?

A) $K=5\times\dfrac{2}{3}$ **B)** $L=\dfrac{5}{2}$

C) $3K=4L$ **D)** $K=L$

Q19: **John estimates** 2451×129 **by rounding the numbers to the nearest hundred. What is the difference between John's estimate and the exact product?**

A) 66179 **B)** 50000

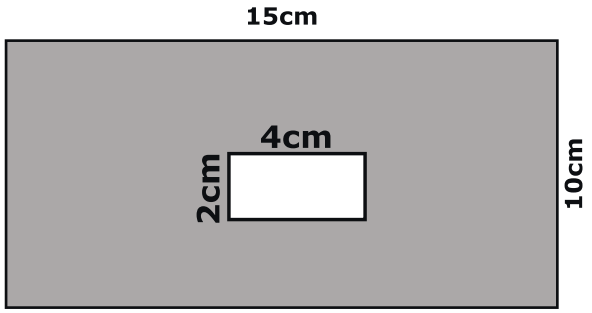
C) 66781 **D)** 55674

Q20: Which numbers can be combined with the operation $(+,-,\times,\div)$ to get 116?

A) 2,4,5,12 **B)** 50,2,25,8

C) 5,1,6,50 **D)** 6,2,15,1

Q21: Find the area of the shaded region?



A) 142 cm^2 **B)** 150 cm^2

C) 158 cm^2 **D)** 138 cm^2

Q22: A property company offers two different payment plans for its apartments.

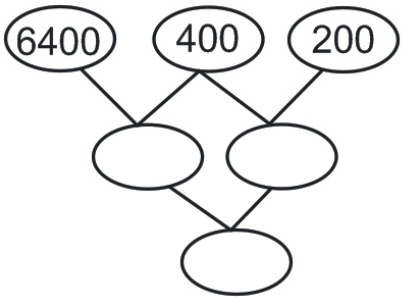
	Advance payment (RS)	Installment payment	Number of installments
1st plan	Rs. 1200	Rs. 80	16
2nd plan	Rs. 4600	Rs. 60	12

Farhan buys an apartment with the first payment plan and Ahmed buys an apartment with the second plan.

How much more does Ahmed pay?

A) 2800 **B)** 2840 **C)** 2480 **D)** 2880

Q23: In the figure below, we divide the bigger number by the smaller number in each case and write the quotient below the number.



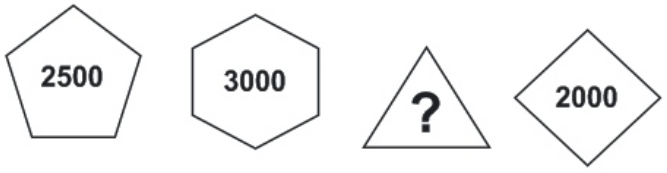
What is the number in the lowest circle?

A) 3 **B)** 2 **C)** 6 **D)** 8

Q24: The product of two numbers is the biggest possible three-digit odd number. If one of the numbers is 37, what is the other number?

A) 17 **B)** 13 **C)** 27 **D)** 23

Q25: The number in each shape below is related to the shape. What number must be in triangle?



A) 1000 **B)** 1500 **C)** 750 **D)** 250

Q26: Each letter below represents a number.

$n - 5 = 7$

$m \times 3 = n$

$n \div m = k$

$k + 5 = t$

Which letter has the biggest value?

A) n **B)** m **C)** k **D)** t

Q27: Which number cannot be the area of a square if the length of one side of the square is a natural number?

A) 16 **B)** 28 **C)** 36 **D)** 121

Q28: Which of the following statement is false?

A) $12 \times 12 = 12^2$ **B)** $15 \times 15 \times 15 = 15^3$

C) $49 \times 49 = 49^2$ **D)** $4 + 4 + 4 + 4 = 4^4$

Q29: $a = 0.3$ **and** $b = 0.5$ **then find** $\frac{1}{a} + \frac{1}{b}$

A) $16/3$ **B)** $24/5$ **C)** $24/9$ **D)** $1/9$

Q30: $A + 12 = 102$, $B \div 16 = 3$ **and** $A + B = C$ **so what is C?**

A) 122 **B)** 124 **C)** 132 **D)** 138

Q31: a, b and c are natural numbers and $\frac{33}{7} = a\frac{b}{c}$ **where** $a\frac{b}{c}$ **is a mixed number. Find the smallest possible value of** $a + b + c$

A) 16 **B)** 17 **C)** 15 **D)** 14

Q32: A man drives for 17 hours at an average speed of 115km/h. How far does the man travel, in kilometres?

A) $1945km$ **B)** $1955km$

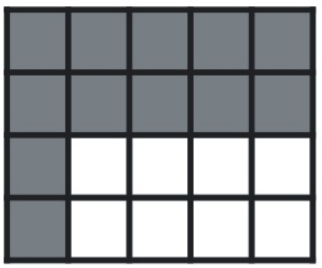
C) $1317km$ **D)** $1715km$

Q33: Which number below has the expanded form of $200 + 50 + 8 + \frac{3}{10} + \frac{5}{100}$

A) 2.5835 **B)** 2583.5

C) 258.35 **D)** 25.835

Q34: What percentage of the figure below is shaded?



A) 40% **B)** 50% **C)** 60% **D)** 45%

Q35: The price of an LCD television goes up by 20%. The old price was $ 1500. What is the new price of the television?

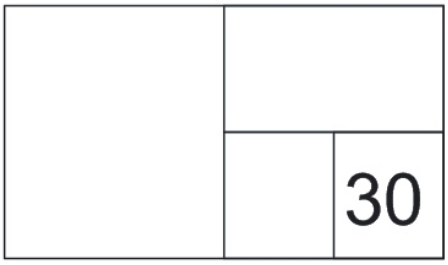
A) $1640 **B)** $1680

C) $1750 **D)** $1800

Q36: Ali has a stick, which is 27cm long. He measures one side of his school and finds it 40 sticks long. What is length of his school in meters?

A) $10.2m$ **B)** $10.4m$ **C)** $10.8m$ **D)** $12m$

Q37: The big rectangle below represents a number. The small square is equal to 30. Which sentence below describes this figure in words



A) $\frac{1}{2}$ **of** $\frac{1}{4}$ **of** $\frac{1}{2}$ **ofa number is30**

B) $\frac{1}{2}$ **of** $\frac{1}{2}$ **of** $\frac{1}{2}$ **of a number is 30**

C) $\frac{1}{4}$ **of** $\frac{1}{2}$ **of** $\frac{1}{2}$ **of a number is 30**

D) $\frac{1}{2}$ **of** $\frac{1}{2}$ **of** $\frac{1}{4}$ **of a number is 30**

Q38: Irina gave correct answers to 1/5 of the questions in an exam. She gave wrong answer to 1/ 10 of the questions and did not answer six questions. How many questions were in the exam?

A) 45 **B)** 60 **C)** 75 **D)** 90

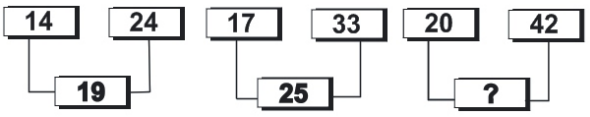
Q39: Hakan says: " The sum of 1/3 and 4/9 of a number is 35." Find the number

A) 35 **B)** 45 **C)** 30 **D)** 50

Q40: Find the sum of numbers between 15 and 55 which are divisible by 5

A) 195 **B)** 265 **C)** 225 **D)** 245

Q41: What is ? in the number pattern below?



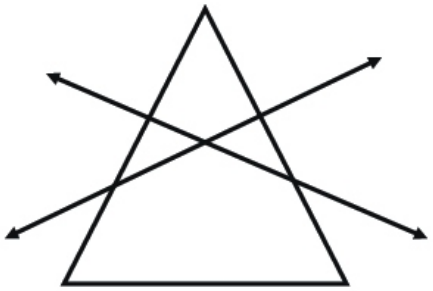
A) 33 **B)** 29 **C)** 21 **D)** 31

Q42: Ali uses the digits 3,5,6,8,9 and 0 to make the biggest possible six-digit odd number with the biggest digit in the ten thousand place. What is his number?

A) 865390 **B)** 896530

C) 896503 **D)** 865309

Q43: Two lines intersect inside a triangle as shown below. Which polygonal region is not formed by the lines and triangle?



A) Triangle **B) Quadrilateral**

C) Pentagon **D) Hexagon**

Q44: If we subtract 7 from 2013 continuously, which of the following number we can not find?

A) 1964 **B)** 1915

C) 1866 **D)** 1818

Q45: $\frac{1^1}{1}+\frac{2^2}{2}+\frac{3^3}{3}+\frac{4^4}{4}=?$

A) 39 **B)** 76 **C)** 144 **D)** 288

Q46: After every four days in a country is holiday, if the last holiday was on Friday which day will be holiday after 72 days

A) Monday **B) Tuesday**

C) Friday **D) Sunday**

Q47: Which of the following number is the next number in sequence

$1\times1^2+2\times3^2+3\times5^2+4\times7^2+\_\_\_\_$

A) 900 **B)** 405 **C)** 450 **D)** 45

Q48: In a division operation, the divisor is 28 and the quotient is 14. The remainder is the average of the divisor and the quotient.

What is the dividend?

A) 413 **B)** 431 **C)** 396 **D)** 451

Q49: Find the smallest number so that when you divide it by 18, 24 and 30, in each case, the remainder is 2.

A) 360 **B) 258** **C) 362** **D) 422**

Q50: 355×143

A maths teacher writes the above operation on the board. Four students estimate the result. Whose estimate (nearest ten) is closest to the actual value

A) 350×140 **B)** 360×140

C) 300×100 **D)** 350×150