

National Analytical Brains Competition 2020

NAB Competition 2020 - Grade 06

Mathematical Ability

All questions are mandatory. Please note there is no negative marking:

Q 1: Find the value of $64 \div 16 \times 5 + 20 - 30$

- 11
- 10
- 12
- None of these

Q 2: Find the value of a and b:

$$\frac{121}{1331} = \frac{3}{a} = \frac{b}{165}$$

- 33,15
- 15,33
- 35,16
- 33,51

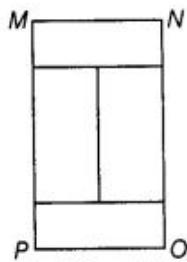


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Q 3: On the number line, the value of $(-2) \times 3$ lies on right hand side of

- 7
- 4
- 0
- 7

Q 4: Rectangle MNOP is made up of four congruent rectangles. If the area of one of the rectangle is 8 sq. m and length is 4 m, then find the perimeter of MNOP

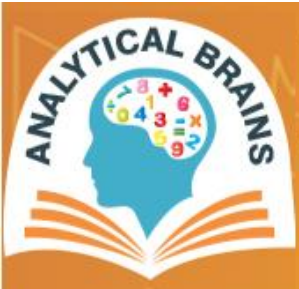


- 24 m
- 26 m
- 28 m
- 30 m

Q 5: Which sign will come in the blank space?

$$(-6) \times (-5) - 2 \quad \underline{\hspace{2cm}} \quad (-6) \times (-5 - 2)$$

- <
- >
- =
- Can't say



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Q 6: Two tankers contain 140 liters and 290 liters of petrol, respectively. Find the capacity of the largest measuring container which can measure the petrol of each tanker exactly?

- 406
- 29
- 10
- 14

Q 7: If $2x+7=-3$ then value of $x-5$ is

- 0
- 5
- 10
- 5
- None of these

Q 8: Divide Rs. 2453 between Priyanka and Rohit in the ratio 7:4.

- Rs. 1561, Rs. 892
- Rs. 1420, Rs. 1033
- Rs. 1490, Rs. 963
- Rs. 1516, Rs. 937



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Q 9: A number is multiplied by 3 and 7 is taken away from the product to get answer 11. What is the number?

- 6
- 6
- 0
- 1
- None of these

Q 10: A wire is bent to form a square of side 22 cm. If the wire is re bent to form a circle, its area will be

- 196 sq. cm
- 212 sq. cm
- 616 sq. cm
- 644 sq. cm

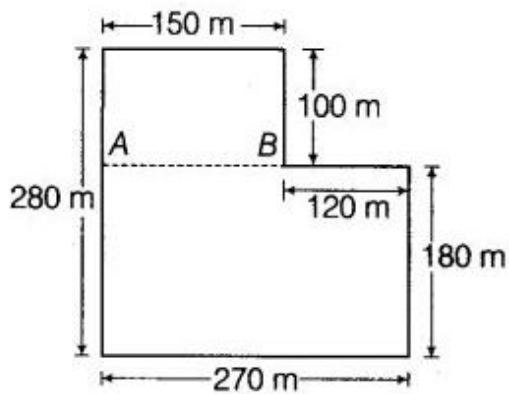
Q 11: Which of the following statements is not true?

- Both addition and multiplication are closed for whole numbers.
- Addition and multiplication both are commutative for whole numbers.
- Zero is the identity for multiplication of whole numbers.
- Multiplication is distributive over addition for whole numbers.



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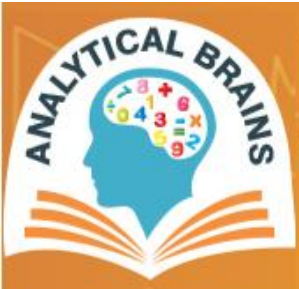
Q 12: Total cost of fencing the park shown in figure is Rs 27500. Find the cost of fencing per metre.



- Rs.24
- Rs.26
- Rs.25
- Rs.30

Q 13: Which of the following pairs is not co-prime?

- 42, 60
- 45, 14
- 22, 3
- 31, 13



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Q 14: The number of trays of egg available for making cake is 85000. Each tray has 9 eggs. Each cake is made with 200 eggs. How many cakes can be made from the eggs available?

- 3825
- 3805
- 3725
- none of these

Q 15: Every whole number has its predecessor as a whole number.

- True
- False
- Can't Say
- None of these

Q 17: Find the value of $7614 + 832 \times 48 \div 16 - 8$

- 11504
- 10102
- 14052
- 11204



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Q 18: The area of a rectangle 144 m long is same as that of a square of side 84 m. The width of the rectangle is

- 14 m
- 7 m
- 49 m
- 12 m
- None of these

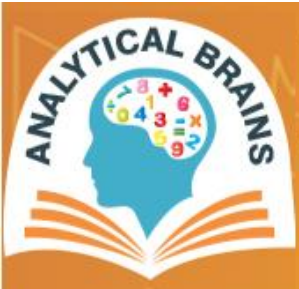
Q.19: The quotient of x by y added to the product of x and y is written as

(A) $\frac{x}{y} + xy$ (B) $\frac{y}{x} + xy$ (C) $\frac{xy + x}{y}$ (D) $\frac{xy + y}{x}$

- A
- B
- C
- D

Q 20: Determine the two numbers nearest to 10000 which are exactly divisible by 6, 5, 9 and 3.

- 9990, 10080
- 9995, 10060
- 9999, 10008
- 9909, 10008



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Logical Reasoning Ability

All questions are mandatory. Please note there is no negative marking:

Q 21: What comes next in the following series?

6, 11, 21, 36, 56, ?

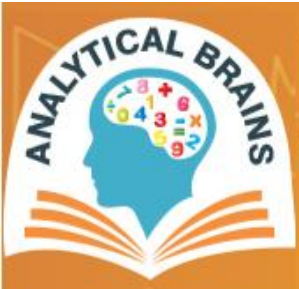
- 42
- 51
- 81
- 91

Q 22: If all the words are arranged alphabetically as in a dictionary then which one will come in the last?

- Research
- Rational
- Round
- Rustic
- Rural

Q 23: In a certain code language, '934' means 'food is tasty' ; '478' means 'take food picture' and '792' means 'picture is faint'. Which of the following digits stands for 'food'?

- 9
- 2
- 3
- 4

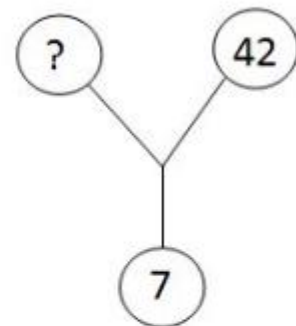
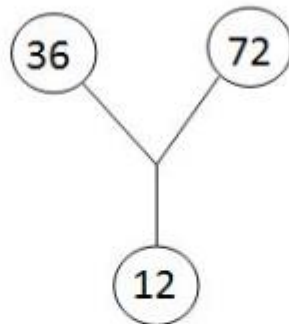
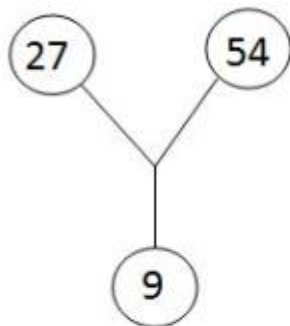


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Q 24: Out of the below five words, four are alike in some manner and fifth is different. Find that out:

- Sun
- Moon
- Star
- Planets
- Universe

Q 25: Which one of the following will replace the question mark (?) In the number pattern given below?



- 35
- 12
- 21
- 18



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Q 26: Which letter is exactly midway between G and Q in the below series

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

- K
- L
- M
- N

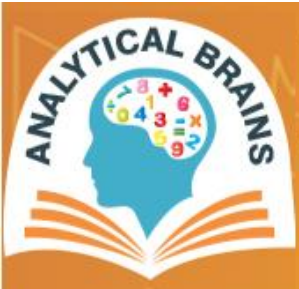
Q 27: There is a certain relation between two words given on one side of :: . Out of the below four alternatives, one word will have similar relation with the word on other side of ::

Bird : Chirp :: Horse : ?

- Bray
- Neigh
- Race
- Stable

Q 28: Find out the odd pair from the below 4 pairs:

- 34 - 43
- 55 - 62
- 62 - 71
- 83 - 92



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Q 29: If in a certain code , BAT = 23 and CAT = 24, then BALL = ?

- 27
- 28
- 32
- 120

Q 30: Preeti walks towards North from a certain point A, after walking some distance she takes right turn, walks a certain distance and again turns right. Now towards which direction does she face?

- North
- East
- South
- West

Q 31: What will be the minor angle between hands of a clock at 3 : 30?

- 90
- 80
- 75
- 72



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Q 32: If "Eraser" is called "box", "box" is called "pencil", "pencil" is called "Sharpener", "Sharpener" is called "bag", then what will a child write with?

- Eraser
- Box
- Pencil
- Sharpener
- Bag

Q 33: Which number does not fit into the given series?

9, 27, 54, 62, 81, 72

- 9
- 27
- 54
- 62
- 81
- 72

Q 34: There is a certain relation between two numbers given on one side of :: . Out of the below four alternatives, one number will have similar relation with the number on other side of ::

1 : 1 :: 25 : ?

- 26
- 125
- 225
- 625



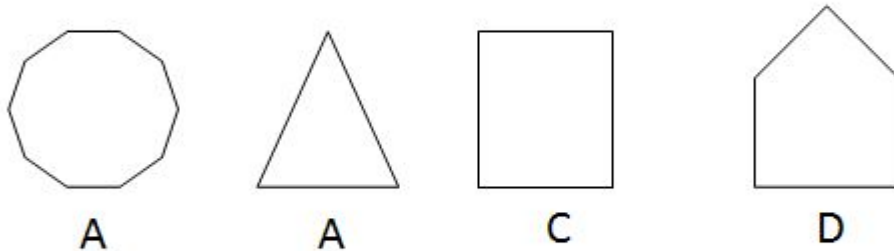
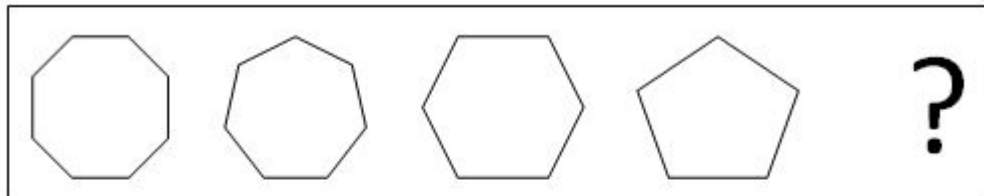
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Q 35: Choose the correct option to fill in the gap.

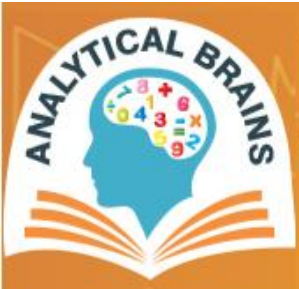
AB ___ BAA ___ AB ___

- AAAAA
- AABAA
- AABAB
- BAABB

Q 36: Which of the following figures will come next in the series?



- A
- B
- C
- D

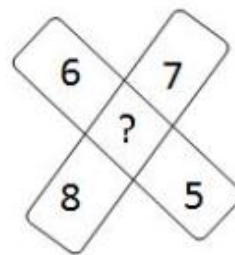
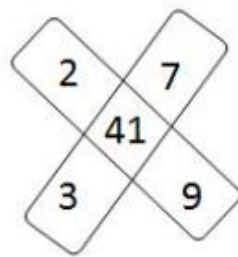
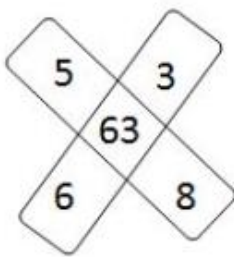


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Q 37: Today is Monday. After 33 days, it will be:

- Wednesday
- Thursday
- Saturday
- Tuesday

Q 38: Assuming that the numbers in set of figures follow a similar pattern, find the missing number.



- 26
- 82
- 83
- 86

Q 39: Which group of numbers does not fit into the given series?



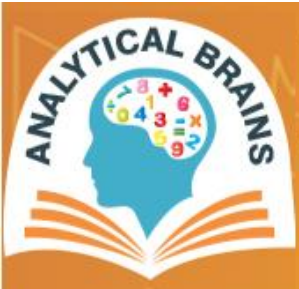
- 236
- 248
- 339
- 426



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Q 40: I am facing East. I turn right. What direction am I facing?

- East
- West
- North
- South



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Real Life Problems

Questions from 41 to 45 are correlated:

There are five brothers – Priyansh, Yuvan, Rahul, Rohin and Vivaan. Rahul is the tallest. Priyansh is shorter than Yuvan but taller than Vivaan. Rohin is a little shorter than Yuvan and little taller than Priyansh.

Q 41: Who is the shortest?

- Vivaan
- Rohin
- Priyansh
- Yuvan

Q 42: If they stand in the order of increasing heights, who is the second?

- Rohin
- Priyansh
- Yuvan
- Vivaan

Q 43: If they stand in the order of their heights, who will be in the middle?

- Yuvan
- Vivaan
- Priyansh
- Rohin



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Q 44: Who is the second tallest?

- Rohin
- Yuvan
- Priyansh
- Vivaan

Q 45: Who is taller than Rohin but shorter than Rahul?

- Yuvan
- Vivaan
- Priyansh
- Data Inadequate

Q 46: 20 teams took part in a football league. Each team was to play exactly one match with another. Can you find out how many matches will be played altogether.

- 380
- 400
- 190
- 40

Q 47: if you are 13 years old and your brother is 10 years old. Can you tell after how many years sum of your age will be 55.

- 55 Years
- 32 Years
- 16 Years
- 39 Years



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Q 48: You purchased a comic book having 62 pages. Find the total number of digits in all the page numbers of the comic book.

- 62
- 115
- 124
- None of these

Q 49: A fisher man ties 7 ropes together to form a long rope. How many knots will be there on the long rope? Assume there were no knots tied at the end of long rope.

- 5
- 6
- 7
- 8

Q 50: 80 mangoes are planted around a circular lake. Each tree is planted 8 m away from another. What will be the circumference of the lake?

- 648 m
- 800 m
- 640 m
- 632