OLYMPIAD WORLDWIDE

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Test Name : Grade-8 (Maths Test)
Difficulty Level : Medium
Test Type : Paid

Total Questions : 32
Total Marks : 160.00
Duration : 60.00 mins

Q.1
If p = -1,what is the value of $1 - p^{20}$?
A. -p
B. *0*
C. 1024
D. 1-p

Answer : B

Q.2
Which of the following is true for the expression 9+4 ?
A. $\sqrt{9}+\sqrt{4}$
B. 3+2
C. $\sqrt{13}$
D. $\sqrt{5}$

Answer : C

Q.3
What value of 'x' makes the average of the first three numbers in the list given equal to the average of the last four?

15, 5, x, 7, 9, 17

A. 19
B. 21

C. 24
D. 27

Answer : A,

Q.4
If 2x-3yx+2y=3 then the numerical value of2x+y3x+10y is
A. 1
B. 12
C. 23
D. None of these

Answer : A,

Q.5
Given the areas of three sides of a rectangular box, 120 cm^2, 72 cm^2, and 60 cm^2, Find the box's volume.
A. 2140 cm^2
B. 720 cm^2
C. 820 cm^2
D. None of these

Answer : B,

Q.6
Which one of the following is an even number?
A. $2007^3 + 4$
B. $2008^3 + 5$
C. 2009^3
D. None of these

Answer : D,

Q.7
The sum of the digits of a two-digit number is 15. When 27 is added to the number, the digits are reversed. What is the original two-digit number?

A. 46
B. 69
C. 29
D. None of these

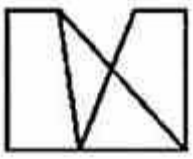
Answer : B,

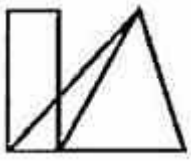
Q.8
If 120% of Natasha's weight equals 75% of Raven's weight, what is the ratio of Natasha's weight to Raven's weight?
A. 3 : 8
B. 5 : 8
C. 7 : 8
D. None of these

Answer : B,

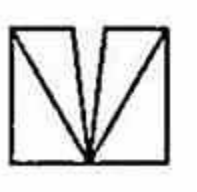
Q.9

Find the answer figure in which the above figure is embedded

A. 

B. 

C. 

D. 

Answer : B,

Q.10
Can you determine the code for the word "PROTECTED" in a certain code language if you are given that the word "DEFENSIVE" is coded as "FCHCPQKTG" using a letter-to-letter substitution cipher?
A. TORPEDETC
B. RTQUDARCB
C. RPQRGAVCF
D. EFUDFUPSQ

Answer : B,

Q.11
Select the correct option to replace the question mark in the below series: AAWZ, ? , CCSX, DDQW, EEOV
A. BBUY
B. BBWX
C. BCVX
D. BBYW

Answer : A

Q.12
Starting from point X, Joseph walked 15 m towards west. He turned left and walked 20 m. He then turned left and walked 15 m. After this he turned to his right and walked 12 m. How far and in which directions is now Joseph from X?
A. 32 m, South
B. 47 m, East
C. 42 m, North

D. 27 m, South

Answer : A

Q.13
Pointing to a girl Sandy said, "She is the daughter of the only sister of my father." How is Sandy related to the girl?
A. Uncle
B. Cousin
C. Father
D. Grandfather

Answer : B,

Q.14
Choose the correct mirror image for the word below if the mirror is placed vertically on the left side of the word

EFFECTIVE

A. 

B. 

C. 

D. 

Answer : A,

Q.15
Complete the given series: 2, 4, 12, ……, 240, 1440
A. 39
B. 48
C. 55

D. 20

Answer : B,

Q.16
If Jack finds that he is 13^{th} from the right in a line of boys and 8th from the left, how many more boys should be included in the line such that there are 30 boys in the line?
A. 9
B. 10
C. 13
D. 14

Answer : B,

Q.17
A student failed a test by 50 marks and got 30 marks out of the maximum marks. What is the maximum test mark if the student needs 40% to pass?
A. 160
B. 180
C. 200
D. 320

Answer : C,

Q.18
Eight distinct points lie on a circle. How many different chords can be determined by these points?
A. 40
B. 18
C. 32
D. 28

Answer : D,

Q.19

Which of the following is not true?

A. 50= 5 x 2

B. 60 = 4 x 15

C. 243= 9 x 3

D. 400= 20 x 1

Answer : B,

Q.20

What must be added to the following algebraic expression to make it a perfect square? 5x264-340x20+2225

A. 5

B. 1

C. 2

D. *4*

Answer : C,

Q.21

If the eight-digit number 392a4 is exactly divisible by 11, what is the least possible value of a?

A. 0

B. 2

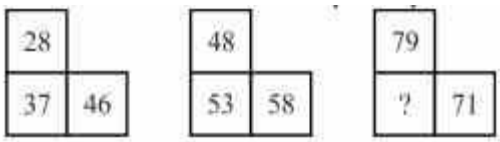
C. 3

D. 4

Answer : A,

Q.22

Examine the following three figures given below in which the number follows a specific pattern: The missing number in the third figure given above is _____.



A. 65
B. 75
C. 30
D. 68

Answer : B,

Q.23
At a certain rate of simple interest, a sum amounts to $7458 in 4 years and $8362 in 6 years. Find the sum.
A. $5630
B. $5050
C. $5650
D. $5030

Answer : C,

Q.24
Emily cycled 25 kilometers in 60 minutes and then increased her speed by 5 kilometers per hour. How long will she cycle for 25 kilometers if she maintains her new average speed?
A. 35 mins
B. 40 mins
C. 50 mins
D. None of these

Answer : C,

Q.25
Car A has tires with a circumference of 200 cm, while car B has a circumference of 250 cm. On a journey of 20 km, what is the difference in the number of revolutions made by a wheel of car A and a wheel of car B?
A. 800
B. 1000
C. 2000
D. None of these

Answer : C

Q.26
The product of 864 and 'n' is a perfect cube. What is the smallest possible value of 'n'?
A. 2
B. -2
C. 1
D. -4

Answer : A,

Q.27
A man bought goods worth $6000 and sold half at a 10% gain. What gain percentage must he sell the remaining half at to make a 25% gain on the entire purchase?
A. 40%
B. 25%
C. 35%
D. 20%

Answer : A,

Q.28
$(a^4 - 1) =$_____
A. $(a^2 + 1)(a + 1)(a - 1)$
B. $(a^2 - 1)(a^2 - 1)$
C. $(a^2 + 1)(a^2 + 1)$
D. None of these

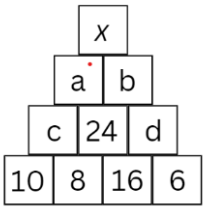
Answer : A,

Q.29
If a boy weighing 79 kg is excluded, what would be the average weight of the remaining 12 boys whose average weight was 46 kg?
A. 39 kgs

B. 42 kgs
C. 43 kgs
D. 38 kgs

Answer : C,

Q.30
The numbers are arranged in the diagram as shown below:



If the number in any box is equal to the sum of the numbers in the boxes immediately below it, like X = a + b, a = c + 24 and so on. Find the value of 'X'.
A. 100
B. 64
C. 88
D. 90

Answer : C,

Q.31
If the population of a town is presently 6,31,680 and has been decreasing annually due to migration, poverty, and unemployment, and if the migration rate was 4% last year and 6% two years ago, what was the population of the town two years ago?
A. 8,00,000
B. 9,50,000
C. 9,00,000
D. 7,00,000

Answer : D,

Q.32

Read the statements given below:

Statement I: (123456 × 123460) > (123458)2

Statement II: (64)13 > (127)11

Statement III: 432 > 6411

Based on the above statements choose the correct option:

A. Only statement I is true

B. Only statement II is true

C. All the statements I, II and III are true

D. All the statements I, II and III are false

Answer : A,