



MATHS

BOOKS - VGS BRILLIANT MATHS (TELUGU ENGLISH)

REAL NUMBERS (MULTIPLE CHOICE QUESTION)

Real Numbers Multiple Choice Question

1. $\frac{9}{15} = \dots\dots\dots$

- A. Terminating decimal
- B. Non-terminating and recurring
- C. Non-terminating and non-recurring
- D. None of the above

Answer: A



2. $\frac{7}{8} = \dots\dots\dots$

- A. 0.375
- B. 0.875
- C. 0.0375
- D. 0.0875

Answer: B

 Watch Video Solution

3. The number $17 \times 11 \times 2 + 17 \times 11 \times 5$ is.....

- A. Prime
- B. Composite
- C. Both prime and composite

D. Neither prime nor composite

Answer: B

 [Watch Video Solution](#)

4. $(256)^{0.16} \times (256)^{0.09} = \dots\dots\dots$

A. 1

B. 2

C. 4

D. 8

Answer: C

 [Watch Video Solution](#)

5. The H.C.F of 72 and 108 is.....

A. 9

B. 36

C. 216

D. 22338

Answer: B

 [Watch Video Solution](#)

6. IF $(a^m)^n = a^{m^n}$ then the value of 'm' in terms of 'n' is.....

A. $n^{\frac{1}{n-1}}$

B. n

C. m^n

D. None

Answer: A

 [Watch Video Solution](#)

7.
$$\frac{\left(p + \frac{1}{q}\right)^p \cdot \left(p - \frac{1}{q}\right)^q}{\left(q + \frac{1}{p}\right)^p \cdot \left(q - \frac{1}{p}\right)^q} = \left(\frac{p}{q}\right)^x$$
 then x=

A. p-q

B. p+q

C. $\frac{p^2}{q^2}$

D. None

Answer: B



Watch Video Solution

8. IF $a^{\frac{1}{x}} = b^{\frac{1}{y}} = c^{\frac{1}{z}}$ and $abc=1$ then $x+y+z=.....$

A. 0

B. -1

C. 1

D. 2

Answer: A



Watch Video Solution

9. If $a = x + \sqrt{x^2 + 1}$, then what is x equal to?

A. $\frac{1}{2} \left(a + \frac{1}{a} \right)$

B. $\frac{1}{2} (a - a^{-1})$

C. $\frac{1}{2} \left(a^2 + \frac{1}{a^2} \right)$

D. $\frac{1}{2} (a)$

Answer: B



View Text Solution

10. IF $2^x = 4^y = 8^z$ and $xyz=288$ then $\frac{1}{2x} + \frac{1}{4y} + \frac{1}{8z} = \dots\dots\dots$

A. $\frac{96}{11}$

B. $\frac{11}{96}$

C. $\frac{1}{9}$

D. $\frac{6}{11}$

Answer: B



Watch Video Solution

11. IF $x = \frac{a-b}{a+b}$, $y = \frac{b-c}{b+c}$, $z = \frac{c-a}{c+a}$ then $\frac{(1+x)(1+y)(1+z)}{(1-x)(1-y)(1-z)}$
=.....

A. -1

B. 0

C. 1

D. $\frac{a+b+c}{a-b-c}$

Answer: C



Watch Video Solution

12. IF $a = 5^{1/3} + 5^{-1/3}$ and $b = 5^{1/3} - 5^{-1/3}$ then $\frac{a^3 - 3a}{b^3 + 3b} = \dots\dots\dots$

A. $\frac{13}{12}$

B. $\frac{12}{13}$

C. 0

D. 1

Answer: A



Watch Video Solution

13. IF $a^x = b^y = c^z, b^2 = ac$ then $\frac{1}{x} + \frac{1}{z} =$

A. $2y$

B. $\frac{2}{y}$

C. $2y^2$

D. $\frac{y}{2}$

Answer: B



Watch Video Solution

14. IF $(1.234)^a = (0.1234)^b = 10^c$ then $\frac{1}{a} - \frac{1}{c} = \dots\dots\dots$

A. b

B. b^2

C. $-b$

D. $\frac{1}{b}$

Answer: D



Watch Video Solution

15. IF $x = \sqrt[3]{\sqrt{2} + 1} - \sqrt[3]{\sqrt{2} - 1}$ then $x^3 + 3x = \dots\dots\dots$

A. 1

B. 2

C. 3

D. 4

Answer: B



Watch Video Solution

16. IF $a+b+c=0$ then

$$\frac{a^2 + b^2 + c^2}{(a - b)^2 + (b - c)^2 + (c - a)^2} =$$

A. 3

B. 3^{-1}

C. 3^2

D. -3

Answer: B



[Watch Video Solution](#)

17. IF $\log 6789=2.8318$, then the number of digits in $(678.9)^{100}$ is

A. 183

B. 283

C. 184

D. 284

Answer: D



[Watch Video Solution](#)

18. IF $\log_3 x + \log_9 x + \log_{27} x + \log_{729} x = 4$ then $x=.....$

A. 3

B. 9

C. 27

D. 2

Answer: B



Watch Video Solution

19. IF $f(a) = \log\left(\frac{2+a}{2-a}\right)$ then

$$\frac{1}{2}f\left(\frac{8a}{4+a^2}\right) = \dots\dots\dots$$

A. $f(a)$

B. $2.f(a)$

C. $\frac{1}{2}f(a)$

D. None

Answer: A



Watch Video Solution

20.

$$\log_{10} \tan 1^\circ + \log_{10} \tan 2^\circ + \log_{10} \tan 3^\circ + \dots + \log_{10} \tan 89^\circ = \dots\dots\dots$$

A. 2

B. 0

C. -1

D. 1

Answer: B



Watch Video Solution

21. $\log_8 128 =$

A. $\frac{7}{3}$

B. $\frac{3}{7}$

C. $\frac{2}{7}$

D. $\frac{1}{3}$

Answer: A



Watch Video Solution

22. IF $4a^2 + 9b^2 = 37ab$ then $\log(2a+3b)=\dots\dots\dots$

A. $\frac{1}{2}(\log a + \log b) + \log 7$

B. $\log a + \log b$

C. $\log 37ab$

D. $\log\left(\frac{a}{b}\right)$

Answer: A



Watch Video Solution