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Lemlem from kindergarten to college preparatory s

School

Maths R.Question for Grade 11 in 2013E.C

Choose the correct answer from the given four alternatives

1. What is the value of x that makes $3^{2x+1}=5$

   A. $x=\frac{1}{2}(\log_3 5-1)$ B.$x=\frac{1}{2}(\log_3 5)+1$ C. x=log 5-log 3 D. $x=\frac{1}{2}(\log_3 5+1)$

2. The solution set of $|3x+2| \geq 5$ is

   A. $\left\{x:x\leq 1 \text{ or } x\geq -\frac{7}{3}\right\}$ B. $\left\{x:x\geq -1 \text{ or } x\leq \frac{7}{3}\right\}$ C. $\left\{x:x\geq 1 \text{ or } x\leq -\frac{7}{3}\right\}$ D. $\left\{x:x\leq 1 \text{ or } x\geq \frac{7}{3}\right\}$

3. If $\sin\theta=\frac{4}{5}$ and θ is an obtuse angle, then tan θ=_____

   A. $-\frac{3}{5}$ B. - 4/3 C. $\frac{3}{\sqrt{5}}$ D. - 4/&5

4. If a line passes through (1,3) and (-3, 7) ,then the angle of inclination of this line is

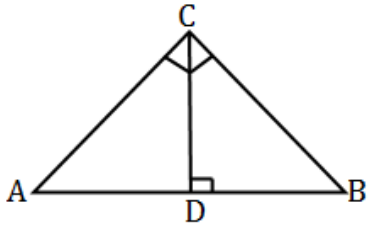
   A. 135^0 B. 45^0 C.120^0 D. 60^0

5. The equation of a line that passes through (2 , 5) and parallel to the line with equation y=5x+1 is

   A. y=5x-5 B. y=5x+7 C. $y=\frac{-1}{5}x+7$ D. $y=\frac{-1}{5}x-5$

6. In the figure given below Δ ABC is a right angled triangle with AD=3 , AB=6, the length of CD is

   A. 4 B. 5 C. 3 D. 6



7. The solution set of the quadratic inequality $2x^2+8x+6 \leq 0$ i s

A. $(-\infty, 3) \cup (-1,\infty)$ B. $(-\infty,-3] \cup -1,\infty)$ C. (-3,-1) D. [-3,-1]

8. The solution set of $|x+6|=2x-1$ is

A. $\left\{-\frac{5}{3},7\right\}$ B. {3} C. {7} D. {3,7}

9. Which one of the following angle is not co-terminal with 50^0 angle

A. -310^0 B. -670^0 C. 780^0 D. 1130^0

10. Which one of the following pairs of equations represents perpendicular lines?

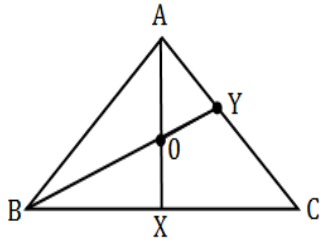
A.x+3y=0&-x+3y=1 B. 3x+y=2 & 3y-x=3 C. x + y=1 & x+2y=1 D. 6x-5y=1&3x+8y=3

11. The zero(s) of the polynomial function $f(x) = x^4-6x^2+8$ is

A. 2, 3,-3,$\sqrt{3}$ B. 0, 1,-3,$\sqrt{3}$ C.4,-2 D. -$\sqrt{2}$,-2,$\sqrt{2}$,

12. In ΔABC shown below, 0 is the intersection point of the medians AX and BY. If the length of BO is 6 units, then the length of OY is

A. 4 units B. 3 units C. 5 units D. 2 units

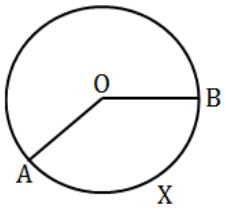


13. Which one of the following is the solution set of $|4x+2|<2$

A. (-3, 1) B. (1, 4) C. (-2, 1) D. (-1, 0)

14. A circle with centre at point o and radius 9 cm is given as shown below .If $m(<AOB)=120^0$, then the length of arc AXB is

A. 6π cm B. π cm C. 3π cm D. 2 π cm



15. The solution set of the equation $\log_3 (2x+1)=2$ is

A.{0.5} B. {3} C. {4} D. {7.5}

16. What is the coordinate of the point that divides the line segment with end points (1,3) &(2,4) in the ratio 1:3?

A. $(\frac{2}{4},\frac{3}{4})$ B. $(\frac{6}{4},\frac{7}{4})$ C. $(\frac{5}{4},\frac{13}{4})$ D. $(\frac{1}{4},\frac{9}{4})$

17. Sec (1320^0) =_____

A. 3 B. -2 C. 3 D.4

18. The length of side and perimeter of a regular hexagon with radius 4 units is

A. 6 units, 20 units B. 6 units, 22 units C. 4 units , 12 units D. 4 units , 24 units

19. What is the value of k such that $3x^4-2x^2+k-16$ divided by x-1 has a remainder of -5

A. -11 B. 12 C. 10 D. -13

20. The solution set of the exponential equation $5(\frac{216}{125})^{2x} = 6(\frac{25}{36})^{(\frac{x}{2}-1)}$

A. {-0.5} B. {2} C. {0.5} D{1} .

21. The volume of a right circular cone of height 12cm and slant height 13cm is equal to___?

A.$100\pi cm^3$. B.$75\pi cm^3$. C.$200\pi cm^3$. D.$300\pi cm^3$

22. The lower and the upper bases of a frustum of a right circular cone have radii 6cm and 4cm respectively. If the height of the frustum is 3cm, then which one of the following is its Volume?

A.$298\pi cm^3$ B.$76\pi cm^3$. C.$34\pi cm^3$. D.$62\pi cm^3$

23. "frustum of a pyramid is, part of the pyramid ____."which of the following phrases correctly completes the above statement?

A. That lies above a plane which cuts the pyramid parallel to the base.
B. Formed by two planes that cut the pyramid below the vertex and parallel to the base.
C. Which is included between the base and a plane that cuts the pyramid parallel to the base.
D. Which is included between the base and any plane that crosses the pyramid.

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