

Continue Practice Exam Test Questions Part
11 of the Series

Choose the letter of the best answer in each questions.

501. The y coordinates of all the points of intersection of the parabola $y^2 = x + 2$ and the circle $x^2 + y^2 = 4$ are given by

- a. 2 , -2
- b. 0 , $\sqrt{3}$, $-\sqrt{3}$
- c. 1 , 2 , -1
- d. 1 , -2 , 1

502. What is the smallest positive zero of function $f(x) = 1/2 - \sin(3x + \pi/3)$?

- a. $\pi/3$
- b. $\pi/6$
- c. $\pi/18$
- d. $\pi/36$

503. A cylinder of radius 5 cm is inscribed within a cylinder of radius 10 cm. The two cylinders have the same height of 20 cm. What is the volume of the region between the two cylinders?

- a. 500π
- b. 1000π
- c. 1500π
- d. 2000π

504. A data set has a standard deviation equal to 1. If each data value in the data set is multiplied by 4, then the value of the standard deviation of the new data set is equal to

- a. 3
- b. 1
- c. 2

d. 4

505. A cone made of cardboard has a vertical height of 8 cm and a radius of 6 cm. If this cone is cut along the slanted height to make a sector, what is the central angle, in degrees, of the sector?

- a. 216
- b. 180
- c. 90
- d. 36

506. If $\sin(x) = -1/3$ and $\pi \leq x \leq 3\pi/2$, then $\cot(2x) = ?$

- a. $4\sqrt{2}$
- b. $2\sqrt{2}$
- c. $\sqrt{2}$
- d. $7/(4\sqrt{2})$

507. If in a triangle ABC, $\sin(A) = 1/5$, $\cos(B) = 2/7$, then $\cos(C) = ?$

- a. $(\sqrt{45} - 2\sqrt{24})/35$
- b. $(\sqrt{45} + 2\sqrt{24})/35$
- c. $(7\sqrt{24} + 10)/35$
- d. 0.85

508. What value of x makes the three terms x , $x/(x + 1)$ and $3x/[(x + 1)(x + 2)]$ those of a geometric sequence?

- a. 1
- b. $1/2$
- c. $1/4$
- d. $-1/2$

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