

Trig Review Quiz 0-8 C

- _____1. Which equation is perpendicular to $y = 7x + 2$?
A. $y = 3x + 2$ B. $y = -\frac{1}{7}x - 8$
C. $y = \frac{1}{7}x + 2$ D. $y = \frac{1}{7}x - 2$
- _____2. On a unit circle what point is associated with $\frac{\pi}{4}$?
A. $\left(\frac{\sqrt{3}}{2}, \frac{1}{2}\right)$ B. $\left(\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$ C. $\left(\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2}\right)$ D. $(0, 1)$
- _____3. What is the domain of $f(x) = \frac{3x-5}{x-12}$?
A. $\mathbb{R} : x \neq 12$ B. $\mathbb{R} : x \geq 12$ C. $\mathbb{R} : x \leq 12$ D. $\mathbb{R} : x > 12$
- _____4. What is the distance from $(5, 7)$ to $(9, 9)$?
A. $2\sqrt{10}$ B. 5 C. $2\sqrt{5}$ D. $5\sqrt{2}$
- _____5. Simplify $(x-1)(x^2 + 2x + 3)$
A. $x^3 + x^2 + x - 3$ B. $x^3 + 2x^2 + x - 3$
C. $x^3 + x^2 - x - 3$ D. $x^3 + x^2 + 2x - 3$
- _____6. Evaluate $\sum_{n=-1}^1 5n^2 - 1$
A. -3 B. -4 C. 3 D. 7
- _____7. Simplify $\frac{9 \pm \sqrt{18}}{3}$
A. $3 \pm i\sqrt{3}$ B. $3 \pm i\sqrt{2}$ C. $3 \pm \sqrt{3}$ D. $3 \pm \sqrt{2}$
- _____8. What is the derivative of $\frac{8}{x^2}$?
A. $16x$ B. $-16x$ C. $\frac{-16}{x^3}$ D. $\frac{-16}{x}$
- _____9. What is the slope of the line tangent to the graph of $f(x) = 3x^2 - x$ at the point $(1, 2)$?
A. 5 B. 6 C. 8 D. None of the above
- _____10. From 10 toppings, how many different 2 topping pizzas can be made?
A. 20 B. 45 C. 90 D. 210