

Trig Review Quiz 9

Name: _____

- _____1. Simplify $(2n^3)^3$
A. $6n^6$ B. $6n^9$ C. $8n^6$ D. $8n^9$
- _____2. In interval notation, what is $2 < x \leq 5$
A. $(2, 5)$ B. $(2, 5]$ C. $[2, 5)$ D. $[2, 5]$
- _____3. If $f(x) = x - 1$ and $g(x) = 4x$, what is $g(f(x))$?
A. $4x - 1$ B. $4x^2 - 1$ C. $16x - 1$ D. $4x - 4$
- _____4. What is the domain of $f(x) = \sqrt{x+6}$
A. $\mathbb{R} : x \neq -6$ B. $\mathbb{R} : x > -6$ C. $\mathbb{R} : x < -6$ D. $\mathbb{R} : x \geq -6$
- _____5. Factor $5a^2 + 10a^3$
A. $5(a^2 + 2a)$ B. $5a(a + 2a^2)$ C. $5a^2(2a)$ D. $5a^2(1 + 2a)$
- _____6. Which equation below is the quadratic equation?
A. $x = \frac{b \pm \sqrt{b^2 - 4ac}}{2a}$ B. $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2c}$ C. $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
- _____7. Solve $x^3 + 6x^2 + 5x = 0$
A. $x = 0$ or $x = -3$ or $x = -2$ B. $x = 0$ or $x = 5$ or $x = 1$
C. $x = 0$ or $x = -5$ or $x = -1$ D. $x = 0$ or $x = 3$ or $x = 2$
- _____8. Simplify $\frac{4a^2c^4}{6ac^5}$
A. $-\frac{2a}{3c}$ B. $\frac{4a}{6c}$ C. $\frac{2a}{3c}$ D. None of the above
- _____9. Simplify $\left(\frac{n^2y^{-2}}{a^{-4}}\right)^2$
A. $\frac{n^4y^4}{a^{16}}$ B. $\frac{n^4y^4}{a^8}$ C. $\frac{n^4a^{16}}{y^4}$ D. $\frac{n^4a^8}{y^4}$
- _____10. Factor $3n^3 + 12n^2 + 2n + 8$