

Trig Review Quiz 18

Name _____

- _____1. 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
- _____2. Perform the following division $n-2 \overline{)n^2+3n-1}$
A. $n+5+\frac{-11}{n-2}$ B. $n+5+\frac{9}{n-2}$ C. $n+1+\frac{1}{n-2}$ D. $n+1+\frac{-3}{n-2}$
- _____3. 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. $\frac{n^4a^8}{y^4}$
- _____4. If $f(x) = 3x - 10$ and $g(x) = 2x + 1$, what is $f(g(x))$?
A. $6x - 19$ B. $6x - 13$ C. $6x + 13$ D. $6x - 7$
- _____5. What is the domain of $f(x) = \sqrt{x-3}$?
A. $x \neq 3$ B. $x > 3$ C. $x \geq 3$ D. None of the above
- _____6. What is the domain of $f(x) = \frac{x^3}{x-3}$?
A. $x \neq 3$ B. $x > 3$ C. $x \geq 3$ D. None of the above
- _____7. If a student body has 82 students, in how many different ways could the class elect a President, Vice President, and Secretary?
A. 72,000 B. 88,560 C. 322,240 D. 531,360
- _____8. $[1 \ -3 \ 0] \cdot \begin{bmatrix} 2 \\ 1 \\ 5 \end{bmatrix}$ **NO CALCULATOR ALLOWED!**
A. $[2]$ B. $[0]$ C. $[-1]$ D. Not possible
- _____9. What is the horizontal asymptote of $y = \frac{3x^5+2}{4x^2+2x+1}$?
A. None exist B. $y = 0$ C. $y = \frac{3}{4}$ D. $y = 3$
- _____10. What would the slope of the line that is perpendicular to $2x - 4y = 10$ be?
A. 2 B. -2 C. $\frac{1}{2}$ D. $-\frac{1}{2}$