

Trig Review Quiz 2 2019-20

Name _____

- _____1. Simplify $(n + 5)^2$ [1-1B]
A. $n^2 + 25$ B. $n^2 + 10$ C. $n^2 + 10n + 25$ D. $n^2 + 10n + 10$
- _____2. What is the domain of $f(x) = x^2 - 9$? [3-2B]
A. $x \neq 3$ B. \mathbb{R} C. $x \geq 3$ D. $x > 3$
- _____3. Factor $8n^3 + 125$ [2-4]
A. $(2n + 5)(4n^2 + 10n + 25)$ B. $(2n - 5)(4n^2 + 10n + 25)$
C. $(2n + 5)(4n^2 - 10n + 25)$ D. $(2n - 5)(8n^2 + 10n + 25)$
- _____4. Solve for n: $4(2n + 5) + 2(3n + 5) = 10n + 22$ [1-1A]
A. $n = -4$ B. $n = \frac{1}{2}$ C. $n = -2$ D. $n = 2$
- _____5. What is the horizontal asymptote of $y = \frac{4x^3 + 5}{4x^2 + 1}$? [6-3A]
A. $y = 0$ B. $y = \frac{1}{2}$ C. $y = 1$ D. No horizontal asymptote
- _____6. $x+2 \overline{)4x^2 + 15x + 14}$ [2-5A]
A. $4x$ B. $4x + 7$ C. $4x + \frac{4}{x+2}$ D. $4x + 6 + \frac{4}{x+2}$
- _____7. $[-2 \ 5] \cdot \begin{bmatrix} 2 & 1 & 0 \\ -1 & 2 & 3 \end{bmatrix}$ [5-3]
A. $[-1 \ -12 \ 15]$ B. $[-9 \ 8 \ 12]$ C. $[-1 \ 8 \ 12]$ D. $[-9 \ 8 \ 15]$
- _____8. Factor $y^5 + 3y^3 + 4y^2 + 12$ [2-3]
A. $(y^2 + 4)(y^3 + 3)$ B. $(y^2 + 3)(y^3 + 4)$ C. $(y^4 + 3)(y + 4)$ D. $(y + 3)(y^5 + 4)$
- _____9. If $f(x) = 5x - 2$ and $g(x) = 2x + 1$, what is $f(g(x))$? [3-2A]
A. $10x - 3$ B. $10x - 13$ C. $10x + 3$ D. $10x - 7$
- _____10. Which is the equation of the line that goes through $(1, 4)$ and $(3, 10)$? [4-2]
A. $y = 3x - 2$ B. $y = 3x + 2$ C. $y = 3x + 10$ D. $y = 3x + 1$