

# Trig Review Quiz 6

Name \_\_\_\_\_

**YOU MAY NOT USE THE CALCULATOR TO GRAPH NOR THE MATRICES BUTTON!**

- \_\_\_\_\_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  $f(x) = \frac{x^3}{x-3}$ ? [3-2B]  
A.  $x \neq 3$       B.  $x > 3$       C.  $x \geq 3$       D. None of the above
- \_\_\_\_\_3. What is the value of  $y$  in  $\begin{cases} 2x - y = 8 \\ 3x + y = 12 \end{cases}$ ? [5-2]  
A.  $y = 0$       B.  $y = 1$       C.  $y = 5$       D. None of the above
- \_\_\_\_\_4. What is  $\begin{bmatrix} 2 & 3 \\ 2 & 4 \end{bmatrix} \cdot \begin{bmatrix} 3 & -2 \\ -1 & -4 \end{bmatrix}$ ? [5-4]  
A.  $\begin{bmatrix} 3 & -16 \\ 2 & -20 \end{bmatrix}$       B.  $\begin{bmatrix} 3 & -16 \\ 2 & -12 \end{bmatrix}$       C.  $\begin{bmatrix} 3 & -16 \\ -2 & -12 \end{bmatrix}$       D. None of the above
- \_\_\_\_\_5. What is the distance from  $(2, 4)$  to  $(5, 6)$ ? [4-1C]  
A.  $\sqrt{5}$       B.  $\sqrt{10}$       C.  $\sqrt{11}$       D. None of the above
- \_\_\_\_\_6. What inequality below represents the interval notation of  $[2, \infty)$  [3-3B]  
A.  $x > 2$       B.  $x \geq 2$       C.  $x \leq 2$       D. None of the above
- \_\_\_\_\_7. Give the equation of the line in slope intercept form that goes through  $(2, 4)$  and has a slope of 8. [4-2]  
A.  $y = 8x - 1$       B.  $y = 8x - 8$       C.  $y = 8x - 12$       D. None of the above
- \_\_\_\_\_8. Perform the following division  $n+4 \overline{)n^2+5n-2}$  [2-5A]  
A.  $n+9+\frac{-34}{n+4}$       B.  $n+1+\frac{-2}{n+4}$       C.  $n+1+\frac{-6}{n+4}$       D.  $n+9+\frac{38}{n+4}$
- \_\_\_\_\_9. I have to make a 3 letter word from the letters MTEIC. In how many ways can I form a three letter word from these 5 letters (doesn't have to be a real word). [4-5]  
A. 120      B. 60      C. 20      D. 10
- \_\_\_\_\_10. Factor  $x^3 - 27$  [2-4]