

# Trig Review Quiz 7

- \_\_\_\_\_1. Simplify  $(x-1)(x^2+2x+3)$  [1-1B]  
 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. Simplify  $\sqrt{-80a^2}$  [1-3]  
 A.  $4a\sqrt{5}$  B.  $2ai\sqrt{10}$  C.  $4ai\sqrt{5}$  D. None of the above
- \_\_\_\_\_3. 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.  $n=2$
- \_\_\_\_\_4. Simplify  $\frac{9\pm\sqrt{18}}{3}$  [1-4]  
 A.  $3\pm i\sqrt{3}$  B.  $3\pm i\sqrt{2}$  C.  $3\pm\sqrt{3}$  D.  $3\pm\sqrt{2}$
- \_\_\_\_\_5. Simplify  $\frac{n^2+4n+3}{n^2+7n+12}$  [2-5B]  
 A.  $\frac{n+3}{n+4}$  B.  $\frac{1}{n+4}$  C.  $\frac{1}{3n+4}$  D.  $\frac{n+1}{n+4}$
- \_\_\_\_\_6. Perform the following division  $n-2 \overline{)n^2+3n-1}$  [2-5A]  
 A.  $n+5+\frac{-11}{n-2}$  B.  $n+5+\frac{9}{n-2}$  C.  $n+1+\frac{1}{n-2}$  D.  $n+1+\frac{-3}{n-2}$
- \_\_\_\_\_7.  $|2x+3|<9$  [6-4]  
 A.  $x>3$  or  $x<-6$  B.  $-6<x<3$   
 C.  $x>-6$  or  $x<3$  D. None of the above
- \_\_\_\_\_8. What is the horizontal asymptote of  $y=\frac{4x^3+5}{4x^3+1}$ ? [6-3A]  
 A.  $y=0$  B.  $y=\frac{1}{2}$  C.  $y=1$  D. No horizontal asymptote
- \_\_\_\_\_9. Would a hole be created on the graph  $y=\frac{x^2+3x+2}{x+5}$ ? [6-3B]  
 A. No B. Yes C. What is a hole? D. I refuse to answer
- \_\_\_\_\_10. What is the slope of the line tangent to the graph of  $f(x)=x^3-2x^2+3$  at the point  $(1, 2)$ ? [7-1B]  
 A. -1 B. -2 C. 3 D. 4 E. -4 H. None of the above