

# Trig Review Quiz 5

Name \_\_\_\_\_

- \_\_\_\_\_1. Simplify  $(a + b)^2$  [1-1B]  
A.  $a^2 + b^2$  B.  $a^2 + 2ab + b^2$  C.  $a^2 + a^2b^2 + b^2$  D.  $a^2 + ab^2 + b^2$
- \_\_\_\_\_2. Simplify  $\sqrt[4]{160}$  [1-3]  
A.  $2\sqrt[4]{20}$  B.  $2\sqrt[4]{10}$  C.  $2\sqrt[4]{5}$  D.  $2\sqrt[4]{2}$
- \_\_\_\_\_3. What is the horizontal asymptote of  $y = \frac{2x^3 + 5}{x^3 - 4}$ ? [6-3A]  
A.  $y = 0$  B.  $y = 1$  C.  $y = 2$  D. No horizontal asymptote
- \_\_\_\_\_4. What is the domain of  $f(x) = \sqrt{2x + 4}$ ? [3-2B]  
A.  $x \neq -2$  B.  $x > -2$  C.  $x \geq -2$  D.  $x < -2$
- \_\_\_\_\_5. What is the distance from (1, 8) to (3, 4)? [4-1C]  
A.  $2\sqrt{7}$  B.  $3\sqrt{2}$  C.  $2\sqrt{3}$  D.  $2\sqrt{5}$
- \_\_\_\_\_6. 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.  $n + 9 + \frac{38}{n + 4}$
- \_\_\_\_\_7. 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
- \_\_\_\_\_8. Simplify  $(2s^{-3}t^2u^{-1}d)^{-3}$  [1-5]  
A.  $\frac{u^3}{8t^6d^3s^9}$  B.  $\frac{s^9u^3}{8t^6d^3}$  C.  $\frac{s^9}{8u^3t^6d^3}$  D.  $\frac{8s^9u^3}{t^6d^3}$
- \_\_\_\_\_9. 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.  $(2n - 5)(8n^2 + 10n + 25)$
- \_\_\_\_\_10. If  $f(x) = 4x - 5$ , what is  $f(f(x))$ ? [3-2A]  
A.  $16x - 25$  B.  $16x - 15$  C.  $16x + 15$  D.  $16x + 25$