

Math C

Unit 3 Quiz

1. Find the range of the given line segment.
 $y = -x + 7$; $-5 \leq x \leq 2$
- a) (5, 12) b) [5, 12] c) [2, 5] d) (2, 5)
2. Find the inverse relation of a given function.
 $f(x) = \frac{1}{3}x - 3$
- a) $f^{-1}(x) = 3x + 27$ b) $f^{-1}(x) = 3x + 9$
c) $f^{-1}(x) = 3x + 3$ d) $f^{-1}(x) = x + 1$
3. Find the vertex of the given function.
 $y = -3|x - 2| + 5$
- a) (2, 5) b) (2, -5)
c) (-2, -5) d) (-2, 5)
4. Find the vertex of the given function.
 $y = 4|x + 9| + 7$
- a) (-4, 7) b) (4, 7) c) (-9, 7) d) (9, 7)
5. How many roots are there in the following function?
 $y = -3|x - 4| + 2$
- a) two b) one c) zero d) infinite
6. How many roots are there in the following function?
 $y = \frac{1}{2}|x - 3| + 8$
- a) two b) one c) zero d) infinite
7. Describe the solution set to the following inequality.
 $|x + 3| - 9 < -5$
- a) the empty set b) all real numbers
c) disjunction d) conjunction
8. Describe the solution set to the following inequality.
 $|x - 5| + 8 > 12$
- a) the empty set b) all real numbers
c) disjunction d) conjunction
9. Simplify the following radical expression.
 $\sqrt{125}$
- a) $5\sqrt{5}$ b) $5\sqrt{25}$ c) $25\sqrt{5}$ d) $\sqrt{125}$
10. Simplify the following radical expression.
 $\sqrt{96}$
- a) $2\sqrt{48}$ b) $4\sqrt{6}$ c) $6\sqrt{16}$ d) $\sqrt{96}$