

# QUIZ 8

This quiz covers sections 2.7, 2.8 and 3.1.

**PLEASE READ CAREFULLY**

**NO CALCULATORS of any type allowed on this quiz**

**Imagine that I have no idea of what you are doing and you have to explain everything!!**  
**This applies to all the quizzes and of course your exams. Not explicit answers will not take full marks!!**

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**Exercise 1:** Determine whether the following functions are inverses of each other:

$$f(x) = 3x + 8, \quad g(x) = \frac{x-8}{3} \quad (2 \text{ points})$$

**Exercise 2:** Determine whether the following functions are inverses of each other:

$$f(x) = x^2, \quad g(x) = \sqrt{x} \quad (3 \text{ points})$$

**Exercise 3:** Write the standard form of the equation of the circle with center (2, -1) and radius  $r=4$

(1 point)

**Exercise 4:** Find the midpoint of the line segment with endpoints: (-2,-1) and (-8,6)

(1 point)

**Exercise 5:** Without graphing the function  $f(x) = -2x^2 - 12x + 3$ ,

- Determine whether the function has a minimum or a maximum value
- Find the minimum or maximum value and determine where it occurs
- Identify the functions domain and its range.

(3 points)