

Attendance Quiz 7

Name: _____ Date: _____

1. Find an equation of the line that satisfies the given conditions:

- (a) passing through $(3, -6)$ and perpendicular to the line $3x + y - 10 = 0$.
- (b) passing through $(3, -6)$ and parallel to the line passing $(1, 1)$ and $(5, -1)$.
- (c) passing through x -intercept 6 and y -intercept 4.
- (d) passing through $(-3, -2)$ with having undefined slope.
- (e) passing through $(2, 3)$ with having zero slope.

2. Solve the equation.

- (a) $x^2 + 2x - 3 = 0$
- (b) $x^2 - x - 1 = 0$
- (c) $x^2 - 7 = 0$
- (d) $2x^2 - 7x = 0$

3. Solve the equation by completing square: $x^2 - 4x - 1 = 0$.
(Any other methods are not acceptable)

- 4. (a) Find the distance and the midpoint between $(-3, 1)$ and $(5, 6)$.
- (b) Find the center and radius of the circle: $x^2 + y^2 + 6x - 2y + 6 = 0$.
- (c) Find an equation for the circle for which the segment of $(-3, 1)$ and $(5, 6)$ is a diameter.

4. Perform the indicated operations and simplify.

- (a) $(2x - 5)(4x^2 + 10x + 25)$
- (b) $(x + 2)^3$

5. Simplify the expression and eliminate any negative exponents.

- (a) $\frac{a^3b^{-4}}{a^5b^{-5}}$
- (b) $\left(\frac{xy^2z^3}{x^{-2}y^{-3}z^4}\right)^3$