

QUIZ 8 - MTH 166 - 10 points

Name: _____ Date: _____

Instructions: Solve the following. Remember to show all work in order to receive full credit.

1. Use the given information to solve the triangle. If two solutions exist, find both.

$$A = 29^\circ, \quad a = 30 \quad b = 45$$

2. Use the Law of Cosines to solve the triangle

$$B = 75^\circ, \quad a = 6.2, \quad c = 9.4$$

3. Use DeMoivre's Theorem to find the indicated power of the complex number. Express the result in standard form.

$$(1 - i)^{12}$$

4. Find the indicated roots of the complex number. Express each root in standard form.

$$\text{cube roots of } -4\sqrt{2}(1 - i)$$

5. Find and graph the equation of a parabola given the Focus: (2,0) and vertex at the origin.

6. Find the center and vertex of the ellipse:

$$\frac{x^2}{169} + \frac{y^2}{144} = 1$$

7. Use a graphing utility to graph the hyperbola:

$$3y^2 - 5x^2 = 15 \quad (\text{Hint: Use two equations})$$

- **REMEMBER** after QUIZ # 8 there will be an exam in the TESTING CENTER
- EXAM #4 will include concepts from Quizzes #7 and #8