

MTH 111 SUMMER 2 2002.

Practice Problems for Exam 2

- Find the distance between the given points.
 - (2, -3) and (-2, 8)
 - (0, $\sqrt{3}$) and ($-\sqrt{2}$, 0)
- Find the equation of the specified circle.
 - The circle with center (3, -5) and radius 7.
 - The circle diameter the line segment from (-2, 2) to (1, 4).
- Find the center and the radius of the circle with equation $(x+3)^2 + y^2 = 5$
- Solve algebraically.
 - $4x - 2 = x + 4$; (b) $3x + 7 = -5 - (2x - 1)$
- Find the zero of the following linear functions.
 - $f(x) = 3x - 9$; (b) $g(x) = \frac{3}{2}x - 6$
- Simplify. Write answers in the form $a + bi$, where a and b are some real numbers.
 - $(2 - 6i)(3 + i)$; (b) $(7 - i) - (2 - 4i)$
- Use the quadratic formula to find the exact solutions.
 - $2y^2 - 3y - 2 = 0$; (b) $x^2 - \sqrt{2}x - 2 = 0$
- Solve by completing the square
 - $x^2 + 4x - 2 = 0$; (b) $3x^2 - 4x = 2$; (c) # 25, 26 page 190
- (a) # 6, page 199; (b) # 10, page 199
- Solve the following inequalities
 - $4x - 2 < 6x + 1$; (b) $4 \leq 3x - 2 \leq 13$; (c) $|4x + 3| \leq 7$
- # 1 through 6, page 233
- # 14, 16, page 234
- # 2, 6 and 30, page 245
- # 2, 4, 16, page 255
- # 10, 20, 26 and 44, page 269