MAT-080 Section N Problem Set 11

Name: _______________________

Provide exact answers. Do not approximate.

1. Solve each equation by factoring.
   (a) \(x^2 + 15x + 44 = 0\)
   (b) \(x^2 - 7x = 18\)

2. Solve each equation.
   (a) \(\frac{x^2}{6} = 24\)
   (b) \(16x^2 - 121 = 0\)
   (c) \((x + 8)^2 = 28\)
   (d) \((5x + 11)^2 - 300 = 0\)
   (e) \(x^2 + 16 = 0\)
   (f) \(3x^2 + 6x = 0\)
3. Solve each of these equations of quadratic form.
   (a) \[ x^4 - 10x^2 + 25 = 0 \]
   (b) \[ x^{2/3} + 3x^{1/3} - 10 = 0 \]

4. Solve each equation by completing the square.
   (a) \[ x^2 + 6x + 7 = 0 \]
   (b) \[ x^2 + 10x + 9 = 0 \]
   (c) \[ 3x^2 - 24x - 5 = 0 \]
   (d) \[ x^2 + 4x + 12 = 0 \]