- You may use only your notes/readings nothing and no one else, internet or in person.
- Hand in at the start of class on Friday.
- Show all work; final answers only receive no credit. Work must be neat and legible.
- 1. Solve the following one-dimensional inequalities, giving your answer in interval notation.
  - a) |x-9| > 6
  - b)  $2x^2 7x \ge 4$
- 2. Lines.
  - a) Find the equation of the line through the point (-4, 1/2) with a slope of 0.
  - b) Find the equation of the line perpendicular to x 6y = 1 through the point (3, -3). Use the point-slope form of the line.
  - c) Rewrite it in slope-intercept form.
- 3. Circle.
  - a) Find the center and radius of the circle  $x^2 + 2x + y^2 y = 3$  by completing the squares.
  - b) Find the *x*-intercepts.
  - c) Sketch an accurate graph of the circle.
  - d) The *y*-intercepts are irrational, one positive and one negative. You need the quadratic formula to find them. Do so. Check your sketch and see if it's believable.