MATH 220 — PRACTICE SOLVING EQUATIONS AND INEQUALITIES

You will need to be able to solve a variety of equations and inequalities to arrive at a function's roots, to find where curves intersect, and to investigate many features of curves that calculus reveals. Here is some practice.

$$x^{2/3} = 25 \qquad\qquad 8q^{1/2} - 4 = 0 \qquad\qquad \sqrt{100 - p^2} = p$$

$$|2x + 11| = 19 \qquad\qquad |x + 9| < 16 \qquad\qquad 4|x - 9| \geq 20$$

$$2x^2 + 13x - 7 = 0 \qquad\qquad\qquad 2x^2 + 13x - 7 \leq 0$$

$$\frac{x^2 - 5x + 4}{x^2 - 1} = 0 \qquad\qquad\qquad \frac{x^2 - 5x + 4}{x^2 - 1} > 0$$

$$\sqrt{p + 1} = p - 5 \qquad\qquad\qquad \sqrt{6p + 10} = 2 + p$$

$$x^3 - 2x^2 - 3x = 0 \qquad\qquad\qquad \frac{1}{t} = 5 + \frac{1}{t^2 + t}$$