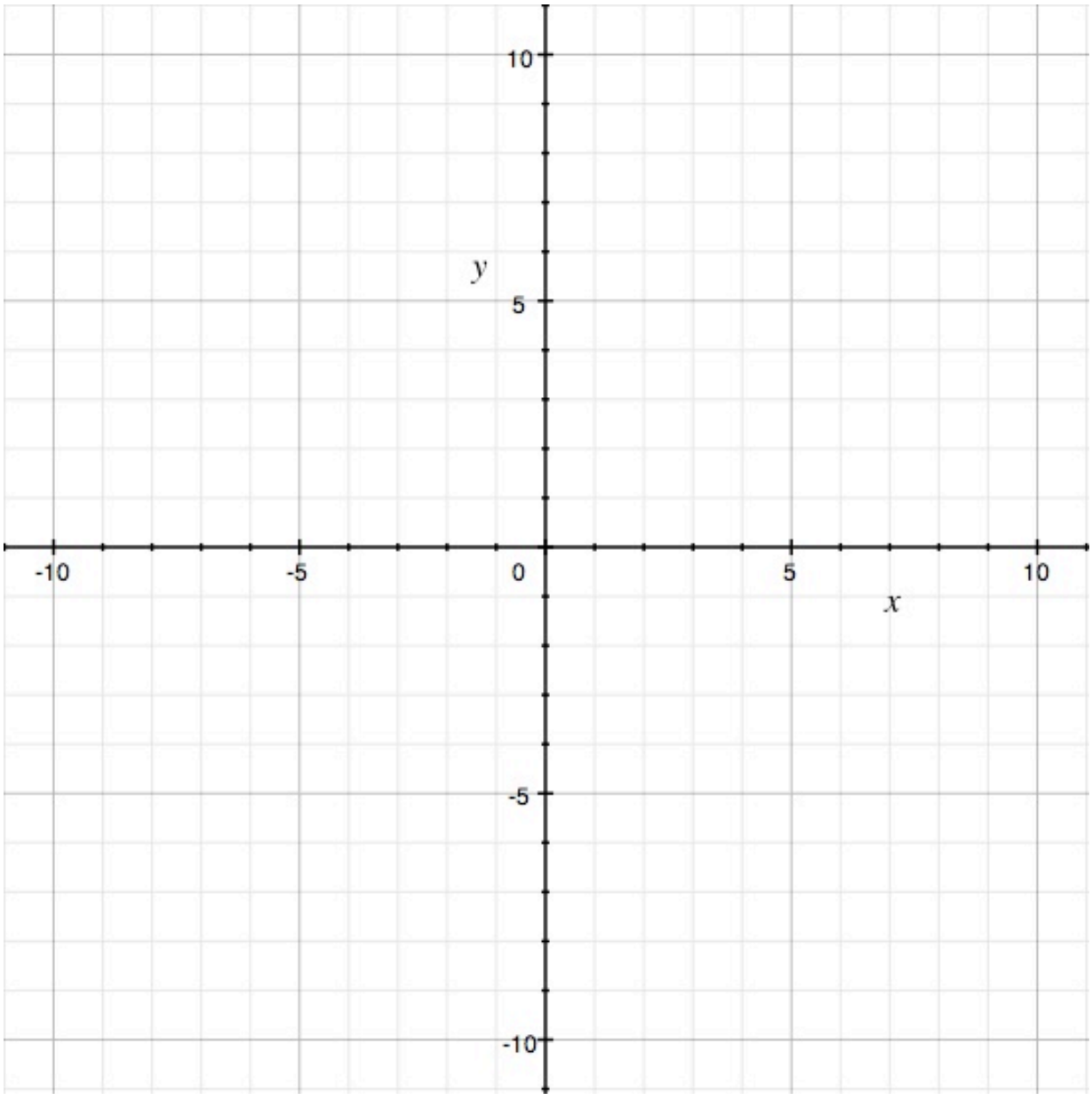
Review of elementary 1st & 2nd degree Functions & Inequalities

I .1 Draw the lines and shade the area defined by the system of inequalities below :

(show which is which by using different colors)

$$\begin{cases} (1) \quad x - 2y + 10 \geq 0 \\ (2) \quad x + 2y - 10 \leq 0 \\ (3) \quad x - 2y - 10 \leq 0 \\ (4) \quad x + 2y + 10 \geq 0 \end{cases}$$

I.2 From the graph, determine the measure of the shaded area (in square units).



II .1 Draw the Parabola and shade the area defined by the inequality below :

$$y \le -\frac{1}{2}x^2 - x + \frac{3}{2}$$

I I.2 Draw the lines and shade the area defined by the system of inequalities below :

$$\begin{cases} 2x+3y+6 \ge 0 \\ y \le -\frac{1}{2}x^2 - x + \frac{3}{2} \end{cases}$$