

a) Solve

$$y = x^2 + 3x - 5$$
$$y = x - 2$$

$$x^2 + 3x - 5 = x - 2$$

$$x^2 + 3x - 3 = x$$

$$x^2 + 2x - 3 = 0$$

$$(x + 3)(x - 1) = 0$$

$$x = -3 \text{ and } x = 1$$

$$x = -3$$
$$y = -3 - 2 = -5$$

$$x = 1$$
$$y = 1 - 2 = -1$$

$$x = -3, y = -5$$
$$\text{and } x = 1, y = -1$$

b) Solve

$$y = 2x^2 + 3x - 5$$
$$y = x - 1$$

$$2x^2 + 3x - 5 = x - 1$$

$$2x^2 + 3x - 4 = x$$

$$2x^2 + 2x - 4 = 0$$

$$x^2 + x - 2 = 0$$

c) Solve

$$y = 2x^2 + 5x - 3$$
$$y = 3x + 1$$