

page 3!
(c)
$$\begin{cases} y = 2x^2 \\ y = -4x - 2 \end{cases}$$

Sub: $y = y$

$$2x^2 = -4x - 2$$

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

$$2(x^2 + 2x + 1) = 0$$

$$x^2 + 2x + 1 = 0$$

$$(x + 1)^2 = 0$$

$$x + 1 = 0$$

$x = -1$ ← one distinct real solution.

Discriminant (How many solutions, and what type)

$$D = (-4)^2 - (4)(2)(2) = 16 - 16 = 0$$

#4b $x = 9$ AOS: $x = \boxed{x_v}$

#4d

$(2, 7)$ and $(-8, 7)$

↑ same ↑

$$x_v = \frac{2 + (-8)}{2} = \frac{-6}{2} = -3$$

AOS: $x = -3$

