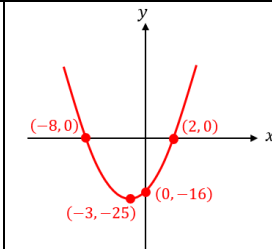
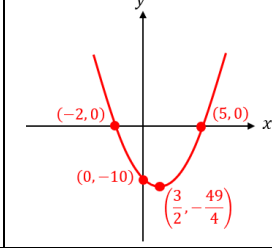
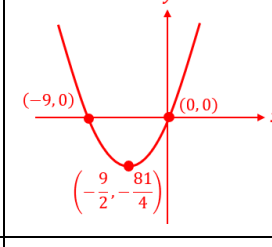
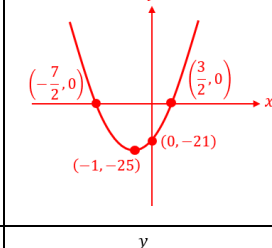
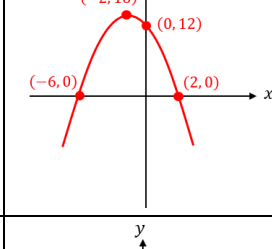
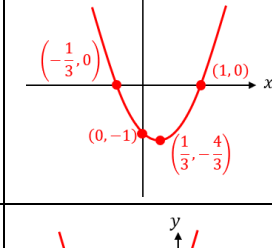


Fill in the Blanks

Sketching Quadratic Graphs

Quadratic Equation	y-intercept	x-intercept	Turning Point	Sketch
$y = x^2 + 6x - 16$	When $x = 0$ $y = -16$ $(0, -16)$	When $y = 0$ $(x + 8)(x - 2) = 0$ $x = -8, x = 2$ $(-8, 0) (2, 0)$	$(x + 3)^2 - 9 - 16$ $= (x + 3)^2 - 25$ $(-3, -25)$	
$y = x^2 - 3x - 10$	When $x = 0$ $y = -10$ $(0, -10)$	When $y = 0$ $(x - 5)(x + 2) = 0$ $x = 5, x = -2$ $(5, 0) (-2, 0)$	$(x - \frac{3}{2})^2 - \frac{9}{4} - 10$ $= (x - \frac{3}{2})^2 - \frac{49}{4}$ $(\frac{3}{2}, -\frac{49}{4})$	
$y = x^2 + 9x$	When $x = 0$ $y = 0$ $(0, 0)$	When $y = 0$ $x(x + 9) = 0$ $x = -9, x = 0$ $(-9, 0) (0, 0)$	$(x + \frac{9}{2})^2 - \frac{81}{4}$ $= (x + \frac{9}{2})^2 - \frac{81}{4}$ $(-\frac{9}{2}, -\frac{81}{4})$	
$y = 4x^2 + 8x - 21$	When $x = 0$ $y = -21$ $(0, -21)$	When $y = 0$ $(2x - 3)(2x + 7) = 0$ $x = \frac{3}{2}, x = -\frac{7}{2}$ $(\frac{3}{2}, 0) (-\frac{7}{2}, 0)$	$4[(x + 1)^2 - 1] - 21$ $= 4(x + 1)^2 - 4 - 21$ $= 4(x + 1)^2 - 25$ $(-1, -25)$	
$y = 12 - 4x - x^2$	When $x = 0$ $y = 12$ $(0, 12)$	When $y = 0$ $(2 - x)(6 + x) = 0$ $x = 2, x = -6$ $(2, 0) (-6, 0)$	$-[(x + 2)^2 - 4] + 12$ $= 16 - (x + 2)^2$ $(-2, 16)$	
$y = 3x^2 - 2x - 1$	When $x = 0$ $y = -1$ $(0, -1)$	When $y = 0$ $(3x + 1)(x - 1) = 0$ $x = -\frac{1}{3}, x = 1$ $(-\frac{1}{3}, 0) (1, 0)$	$3[(x - \frac{1}{3})^2 - \frac{1}{9}] - 1$ $= 3(x - \frac{1}{3})^2 - \frac{4}{3}$ $(\frac{1}{3}, -\frac{4}{3})$	
$y = x^2 + 5ax + 6a^2$ $a > 0$	When $x = 0$ $y = 6a^2$ $(0, 6a^2)$	When $y = 0$ $(x + 2a)(x + 3a) = 0$ $x = -2a, x = -3a$ $(-2a, 0) (-3a, 0)$	$(x + \frac{5a}{2})^2 - \frac{25a^2}{4} + 6a^2$ $= (x + \frac{5a}{2})^2 - \frac{a^2}{4}$ $(-\frac{5a}{2}, -\frac{a^2}{4})$	