

# Review #3 & #4 answers

I. (a)  $\Delta x = 4, \Delta y = -6, m = -\frac{3}{2}$

(b)  $\Delta x = 6, \Delta y = 2, m = \frac{1}{3}$

(c)  $\Delta x = 7, \Delta y = 0, m = 0$

(d)  $\Delta x = 48, \Delta y = 100, m = \frac{25}{12}$

(e)  $\Delta x = 75, \Delta y = -90, m = -\frac{6}{5}$

(f)  $\Delta x = 120, \Delta y = -90, m = -\frac{3}{4}$

II. (a)  $y = \frac{2}{3}x - 4$

(b)  $y = -2x + 3$

(c)  $y = -\frac{3}{2}x - 1$

(d)  $x = -1$

III. (a) x-int.  $(3, 0)$ ; y-int.  $(0, -\frac{9}{4})$

(b) x-int.  $(36, 0)$ ; y-int.  $(0, -9\frac{3}{5})$

IV. (a)  $y = -\frac{4}{3}x + 4$

(b)  $y = -2x + 8$

V. (a)  $(12, 0)$

(b)  $(3, -8)$

VI. (a)  $(-4, 9)$

(b)  $(1, 14)$

I. (a)  $-(4x+9)(4x-9)$

(b)  $-5x^2(6x^4 - 1)$

(c)  $(5x^5 - 6)(5x^5 + 6)$

(d)  $-3x(3x+2)(3x-2)$

(e)  $5x^2(x-11)(x-4)$

(f)  $(4x-3)(5x-2)$

(g)  $(4x^2+9)(5x+2)$

(h)  $(4x-3)(3x+2)$

(i)  $(6x^2-7)(3x-5)$

(j)  $6x^2y(7xy^2 - 8x - 6y)$

II. (a)  $x = 3, -\frac{5}{4}$

(b)  $x = 6 \pm 2\sqrt{5}$

III. (a)  $-29$

(b)  $-80x^4 - 100x^2$

IV. x-int.  $(6, 0)$  &  $(-2, 0)$ ; LOS:  $x = 2$

vertex:  $(2, 16)$ ; y-int.  $(0, 12)$ ; ref. pt.  $(4, 12)$

V. (a)  $x = 26, -8$

(b)  $x = 3, \frac{1}{3}$

(c)  $\emptyset$

VI. (a)  $y = \frac{4}{3}x + 31\frac{2}{3}$

(b)  $y = -\frac{1}{5}x$

(c)  $y = \frac{2}{3}x + 6$