

Review #1 & #2 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) $\Delta x = 0, \Delta y = 7, m = \text{undefined}$
(d) $\Delta x = 20, \Delta y = -50, m = -\frac{5}{2}$
(e) $\Delta x = 40, \Delta y = 160, m = 4$
(f) $\Delta x = 72, \Delta y = -48, m = -\frac{2}{3}$

- II. (a) $y = -\frac{4}{3}x + 2$
(b) $y = 2x$
(c) $y = -\frac{2}{3}x - 1$
(d) $y = -2$

- III. (a) x-int. (6,0); y-int. (0,-10)
(b) x-int. (8,0); y-int. (0,6)

- IV. (a) $y = -\frac{5}{3}x - 1$
(b) $y = 2x - 4$

- V. (a) (12,7)
(b) (-4,-9)

- VI. (a) (-9,7)
(b) (4,-3)

- I. (a) $-(3x+10)(3x-10)$
(b) $-4x^2(5x^3-6)$
(c) $(5x^4-7)(5x^4+7)$
(d) $-4x(5x+3)(5x-3)$
(e) $5x^2(x-12)(x-3)$
(f) $(4x-5)(3x-2)$
(g) $(3x-4)(6x^2-5)$
(h) $(2x-3)(5x+3)$
(i) $(4x^2+7)(5x+3)$
(j) $5xy^2(6x^2y-7x-8y)$

- II. (a) $x = 5, -\frac{3}{4}$
(b) $x = -6 \pm \sqrt{3}$

- III. (a) -3
(b) $-68x^2$

- IV. x-int. (5,0) & (-3,0); LOS: $x = 1$
vertex: (1,16); y-int. (0,15); ref. pt. (2,15)

- V. (a) \emptyset
(b) $x = 2, -\frac{1}{2}$
(c) $x = 16, -4$

- VI. (a) $y = 2x - 8$
(b) $y = \frac{1}{3}x - \frac{14}{3}$
(c) $y = \frac{3}{2}x - 17$