

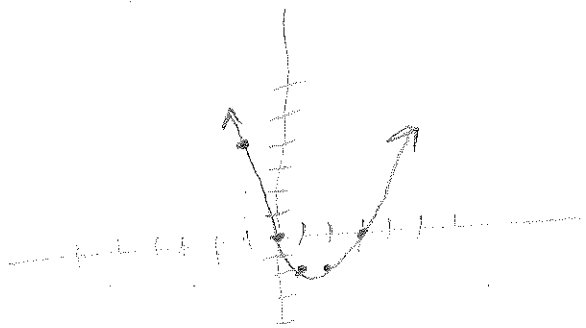
P22-24

7, 12-190, 25-310, 57, 59, 62, 65, 66, 69

§ 1.2

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

x	-1	0	1	2	3
y	4	0	-2	-2	0
(x,y)	(-1,4)	(0,0)	(1,-2)	(2,-2)	(3,0)



13)  $y = \sqrt{x+4}$

$$0 = \sqrt{x+4}$$

$$0 = x+4$$

$$-4 = x$$

$(-4, 0)$  x-int.

$$y = \sqrt{0+4}$$

$$y = \sqrt{4} = 2$$

$(0, 2)$  y-int

15)  $y = |3x-7|$

$$0 = |3x-7|$$

$$0 = 3x-7 \quad \text{or} \quad 0 = -(3x-7)$$

$$7 = 3x$$

$$\frac{7}{3} = x$$

x-int  $(\frac{7}{3}, 0)$

$$-7 = -3x$$

$$\frac{7}{3} = x$$

$$y = |-7| = 7$$

$(0, 7)$  y-int

17)  $y = 2x^3 - 4x^2 = 2x^2(x-2)$

$$0 = 2x^2(x-2)$$

$$x=0 \quad x=2$$

$(0, 0)$   $(2, 0)$  x-int

$$y = 2(0) - 4(0) = 0$$

y-int  $(0, 0)$

$$(19) y^2 = 6 - x$$

$$0 = 6 - x$$

$$x = 6$$

x-int (6, 0)

$$y^2 = 6 - 0 = 6$$

$$y = \pm\sqrt{6}$$

(0,  $\sqrt{6}$ ) (0,  $-\sqrt{6}$ ) y-ints

$$(25) x^2 - y = 0$$

$$y = x^2$$

$$y = (-x)^2 = x^2$$

even  $\therefore$  y-axis symm

$$(27) y = x^3$$

$$y = (-x)^3 = -x^3$$

odd  $\therefore$  origin symm

$$(29) y = \frac{x}{x^2 + 1}$$

$$y = \frac{-x}{(-x)^2 + 1} = -\frac{x}{x^2 + 1}$$

odd  $\therefore$  origin symm

$$(31) xy^2 + 10 = 0$$

$$y^2 = -\frac{10}{x}$$

$$y = \pm\sqrt{-\frac{10}{x}}$$

$$y = \pm\sqrt{\frac{-10}{-x}} = \pm\sqrt{\frac{10}{x}}$$

$$x(-y)^2 + 10 = 0$$

$$xy^2 + 10 = 0$$

x-axis symm

$$(57) x^2 + y^2 = 16$$

$$(59) (x-2)^2 + (y+1)^2 = 16$$

$$(62) \sqrt{(3-1)^2 + (-2+1)^2} = \sqrt{16+1} = \sqrt{17}$$

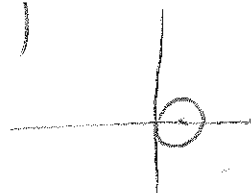
$$(x-3)^2 + (y+2)^2 = 17$$

$$(65) (0, 0) \text{ S}$$



$$(68) x^2 + (y-1)^2 = 1$$

$$(0, 1) \text{ } r=1$$



$$(69) (x-\frac{1}{2})^2 + (y-\frac{1}{2})^2 = \frac{9}{4}$$

$$(\frac{1}{2}, \frac{1}{2}) \text{ } r = \frac{3}{2}$$

