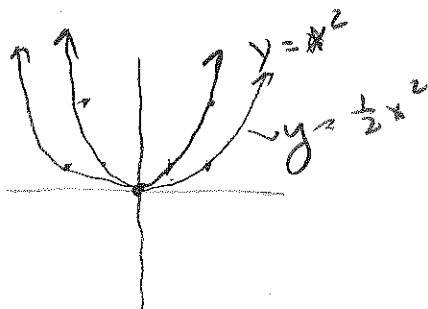


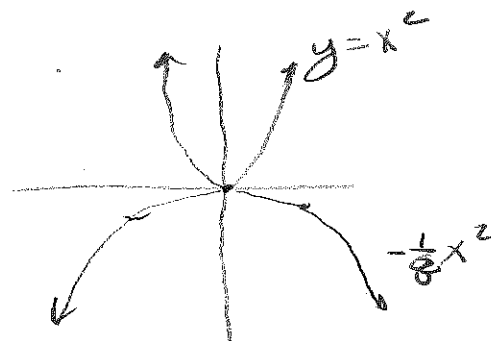
p 134 # 1-8, 9, 13, 18, 29, 25, 37, 40, 44, 45, 53, 56, 65

- | | | | |
|---|---|---|---|
| ① | g | ⑤ | f |
| ② | c | ⑥ | a |
| ③ | b | ⑦ | e |
| ④ | h | ⑧ | d |

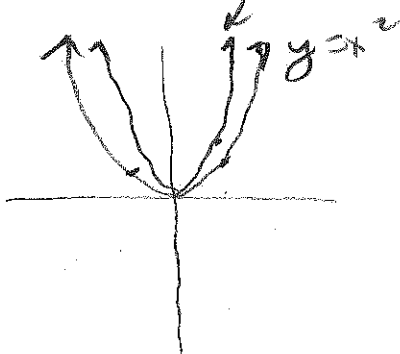
⑨ a)



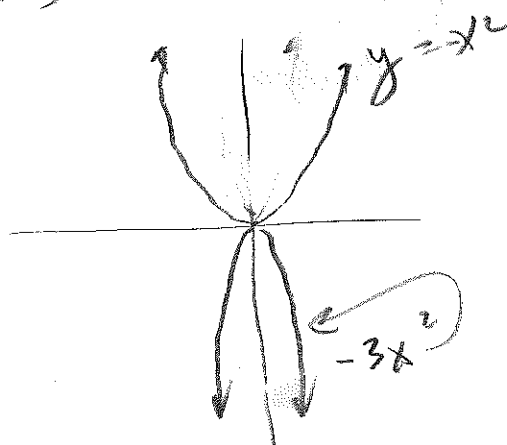
⑩ b) $g(x) = -\frac{1}{8}x^2$



⑪ c) $h(x) = \frac{3}{2}x^2$

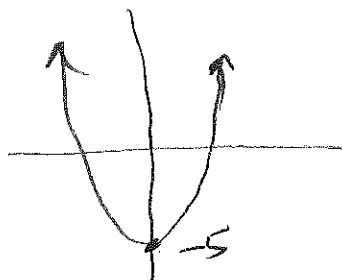


⑫ d) $k(x) = -3x^2$



⑬ $f(x) = x^2 - 5$

$5 = x^2$



x-intercepts: $(\sqrt{5}, 0)$
 $(-\sqrt{5}, 0)$

vertex $(-5, 0)$

axis $x=0$

* (18) $f(x) = (x-6)^2 + 3$

Vertex (6, 3)

axis: $x=6$

intercepts:

$$0 = (x-6)^2 + 3$$

$$0 = x^2 - 12x + 36 + 3$$

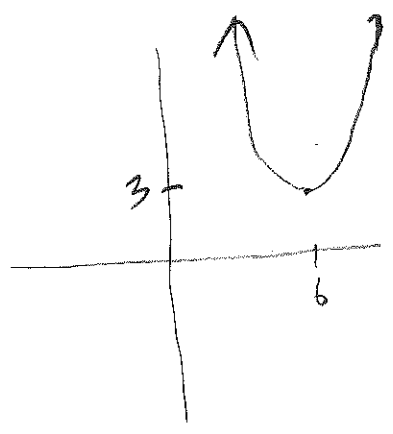
$$\frac{-(-12) \pm \sqrt{(-12)^2 - 4(1)(39)}}{2(1)}$$

$$2(1)$$

$$6 \pm \frac{\sqrt{144 - 156}}{2}$$

undefined

No x-ints



* (24) $f(x) = -x^2 - 4x + 1$

(-2, 5)

vertex: $\frac{-(-4)}{2(-1)} = -2$

$$f(-2) = -(-2)^2 - 4(-2) + 1 = -4 + 8 + 1 = +5$$

axis: $(x = -2)$

$$0 = \frac{x^2 + 4x - 1}{2(1)} = \frac{-4 \pm \sqrt{16 - 4(1)(-1)}}{2(1)}$$

$$-2 \pm \frac{\sqrt{20}}{2} = -2 \pm \sqrt{5}$$

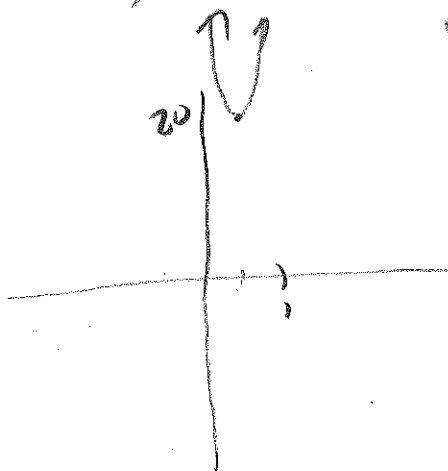
$(-2 + \sqrt{5}, 0) (-2 - \sqrt{5}, 0)$

(25) $h(x) = 4x^2 - 4x + 21$ $(\frac{1}{2}, 20)$

vertex: $\frac{-(-4)}{2(4)} = \frac{1}{2}$

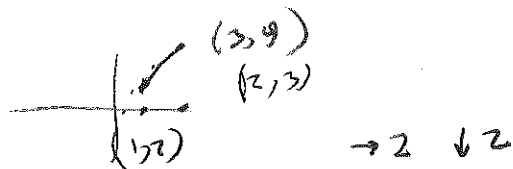
$h(\frac{1}{2}) = 4(\frac{1}{2})^2 - 4(\frac{1}{2}) + 21 = 1 - 2 + 21 = 20$

axis: $x = \frac{1}{2}$



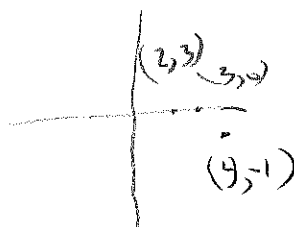
no x-ints

(37) $y = (x-1)^2$



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

(44) $y = (x-4)^2 - 1$



(45) $y = \frac{1}{2}(x-3)^2 + 4$

(53) Graphically: $(4, 0)$ $(-4, 0)$

$y = x^2 - 16$

$0 = (x-4)(x+4)$

$x = 4, x = -4$

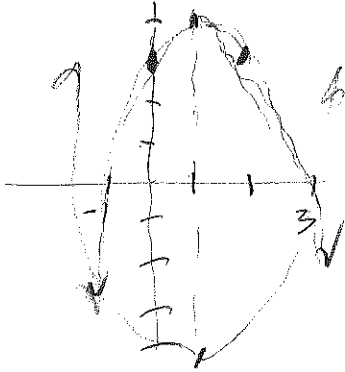
56 Graphically: $(-3, 0)$ $(\frac{1}{2}, 0)$

$$y = 2x^2 + 5x - 3$$

$$0 = (2x - 1)(x + 3)$$

$$x = \frac{1}{2}, x = -3 \checkmark$$

65



$$y = -(x-1)^2 + 4$$
$$y = (x-1)^2 - 4$$