**CH. 4 Test Review Answers**

1. D
2. B
3. C
4. a. Concave up

b. y = -6

c. x = -1

d. y = -8 ; vertex (-1,-8)

1. 3(x-3)(x-1)
2. Graph with vertex at (2,4) and roots at 0 and 4. Concave down.
3. a. i

b. –i

c. 1

1. 3/2 + sq rt of 3 over 2 i. and 3/2 - sq rt of 3 over 2 i.
2. *f*(x) = 3/2 (x + 1)2 + 1
3. a. 1 + 11i

b. 1.3 + 8.1 xi

c. 24x2 + 6

1. 7 – 5i, if you know one imaginary root, the other will be the conjugate.
2. a. concave up

b. x = 5 and x = -2

c. x = 3/2

1. a. concave up

b. (-3,-2)

c. x = -3

1. a. *f*1 could not model the graph. Concave up, positive x-intercepts

b. *f*2 possibility concave up and (-5,1)

1. *f*(x) = 1/4(x-3)(x+1)
2. *f*(x) = -1/60 (d – 30) + 20
3. Graph
4. a. *f*(x) = -3(x – 1)2 + 3

b. *f*(x) = 2(x + 3)2 – 3