Homework

Quadratic models (equations

Write a model for each of the parabolas described

1. Going through (-1,12) (1, 4) and (2, 6)
2. Going through (3, 26) (2, 10) and (-3, 20)
3. with vertex (2,3) going through (0, -9)

1. With vertex (-3,2) going through (1, 4)
2. With vertex (-2,-7) going through (2,0)
3. With x-intercepts (3,0) and (-4,0) and y intercept (0, -12)
4. Going through (-2,0) , (5,0) and (2,4)
5. Going through (4,0) (2,-5) and (-6,0)
6. With a maximum at (2,8) and an x-intercept of (5,0)
7. Going through (-1, -9) with a vertex of (-2, -12)
8. With x- intercepts of (2/3, 0) and (-8,0) and y intercept of (0, -16)

Answers

1. f(x) = 2x2 -4x + 6
2. f(x) = 3x2 + x - 4
3. f(x) = -3(x – 2)2 – 7
4. f(x) = (x + 3)2 + 2
5. f(x) = (x + 2)2 – 7
6. f(x) = (x – 3)(x + 4)
7. f(x) = (x + 2)(x – 5)
8. f(x) = x – 4)(x + 6)
9. f(x) = (x – 2)2 + 8
10. f(x) = 3(x + 2)2 – 12
11. f(x) = 3(x – 2/3)(x + 8) or f(x) = (3x – 2)(x + 8)