For each quadratic :

Find the a) x intercepts

 b) find the y intercepts

 c) determine whether it is concave up or down (max/min)

 d) find the line of symmetry

 e) find the vertex

 f) state the range

 g) state the domain

 h) state intervals of increase and intervals of decrease

 i) list 3 other (random) points on the parabola

 j) sketch a graph – mark the vertex, x – intercepts, and y – intercept on your graph

1. f(x) = 15 – x – 2x2
2. c(x) = (x – 9)(x + 4)
3. g(x) = $\frac{3}{4}\left(x+8\right)^{2}-15$
4. k(x) = x2 + 2x + 10
5. m(x) = (x – 4)(x + 2) – 16