

Using a sheet of copy paper, sketch a graph of the following polynomials. Find and label all intercepts and graph multiplicity accordingly.

1.  $y = (x^2 - 4)(x^2 - 25)$

2.  $y = -2(x + 2)^2(x - 1)(x - 3)^2$

3.  $y = (x + 6)(x + 1)^3(x - 3)^3$

4.  $y = -(x + 5)^2(x + 2)(x - 2)^3$

5.  $y = (x + 7)^2(x + 3)^3(x - 1)^4$

6.  $y = (x^2 - 16)(x + 1)^2(x - 1)^2(x - 8)$