Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8.5 Polynomial Graphs

List the degree and find the end behavior of each graph

1. –x3 + 3x -7 2. -x(x-3)3(x-2)(x+1)4

 Degree:   Degree:  

1. (x-2)(x+7)3  4. 2x4 -3x3 + 2x – 5

 Degree:   Degree:  

Match the polynomial with one of the graph.

5. P(x) = x(x+2)(x-2) 6. Q(x) = -x2(x+2)(x-2) 7. R(x) = -x(x+1)(x-1)(x+2)(x-2)

8. S(x) = $\frac{1}{2}$x4(x+2)(x-2) 9. T(x) = x3(x+2) 10. U(x) = -x2(x+2)





Find all zeros and sketch the graph. Factor if needed

1. P(x) = x3 – x2 -6x 12. P(x) = –x3 + x2 +12x
2. P(x) = x3 + x2 – x – 1 14. P(x) = x4 – 3x2 - 4

15. P(x) = x(x-3)2(x+2)3 16. –(x-1)3(x+7)4(x-3)