Algebra 2

Name_____ ID: 1

Practice EB, Deg, Const, SF, x-int, LC, Poly Operations, Graph, find intersections

Describe the end behavior of each function.

1) $f(x) = -x^4 - 5x^3 - 7x^2 - 3x - 1$

2) $f(x) = x^2 - 2x - 5$

State the degree and constant for the following.

3) $6b^2 + 2$

4) -1

Write the following in standard form and identify the leading coefficient.

5) $9x^3 - 7x^2 - 8 - 8x$

6) $v - 4v^2 - 1$

State the x-intercepts for the following polynomials.

7) $f(x) = (2x + 1)(x + 1)(x - 2)$

8) $f(x) = x(2x + 1)(x + 5)$

Simplify the polynomial.

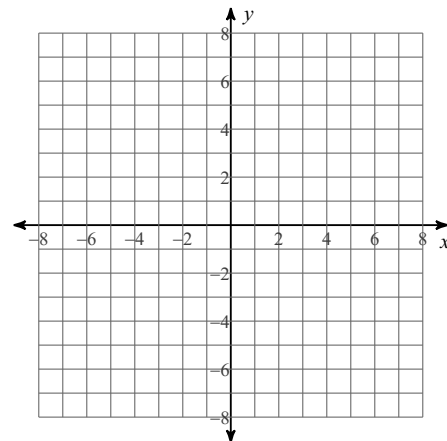9) $(4x + 8) + (x^2 - x - 5)$

10) $3a + 5a^2 - 7a^3 - 5a + 4a^2$

11) $(1 + 8x^3 + 6x + 3x^2) - (6x - 2)$
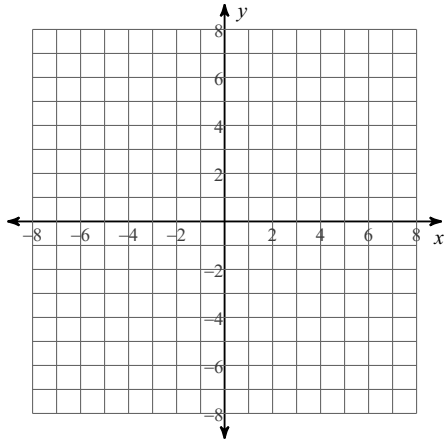
12) $(8p + 4)(6p - 5)$

13) $4b^3(6b^2 - 2b + 5)$

Sketch the graph of each function and identify the EB
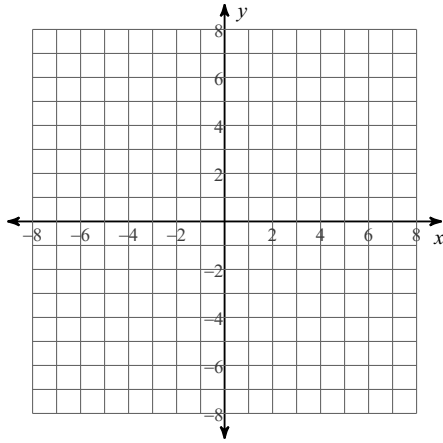
14) $f(x) = -x^3 + 4x^2 - 2$

Sketch the graph of each function.
Approximate each real zero to the nearest
tenth.

15) $f(x) = -x^3 - 8x^2 - 16x - 4$

Sketch the graph of each function and the functions f(x) = x - 1. What are the intersection/s?

16) $f(x) = -x^4 + 4x^3 - 3x^2 - 3$

Sketch the graph of each function and the functions f(x) = x + 2. What are the intersection/s?

17) $f(x) = x^2 + 2x - 5$