Name: $\qquad$ Period: $\qquad$

1. What is the degree of $f(x)$.

$$
f(x)=-7 x^{6}+5 x^{5}-4 x^{2}+1
$$

2. The x -value, 7 , is an x -intercept of $h(x)$. What is the multiplicity of that root?

$$
h(x)=(x-7)^{3}(x+4)^{2}(x+1)
$$

3. Given the graph below, what is the degree of the function?

4. What is the degree of $h(x)$.

$$
h(x)=(x+7)^{3}(x+4)^{2}(x-2)
$$

5. The $x$-value, -3 , is an $x$-intercept of $h(x)$. What is the multiplicity of that root?

$$
h(x)=(x-6)^{3}(x+3)^{5}(x+8)
$$

6. The $x$-value, 2 , is an $x$-intercept of the function graphed below. What is the multiplicity of the $x$-intercept?

7. Given the graph below, name the factors of the function.

8. Given the graph below, what is the degree of the function?

9. Given the graph below, name the factors of the function.

10. Given the graph below, name the factors of the function.

11. The $x$-value, -2 , is an $x$-intercept of the function graphed below. What is the multiplicity of the $x$-intercept?

