

Business PreCalculus MATH 1643 Section 004, Spring 2014
Answer key: Worksheet 20

1- Answers:

a. No, because it has non integer exponent.

b. Yes.

c. No, because it has negative exponent,

2- Answers:

a. Degree is 4 and leading coefficient is -1 .

b. Degree is 6 and leading coefficient is 2.

3- The y -intercept is $(0, 15)$.

4- The zeros are $\{-4, -2, 0, 2, 4\}$ with corresponding multiplicity $\{1, 1, 2, 1, 1\}$.

5- Answers:

a. As $x \rightarrow -\infty$, then $f(x) = -5x^3 - 4x + 1 \rightarrow \infty$ and as $x \rightarrow \infty$, then $f(x) \rightarrow -\infty$.

b. As $x \rightarrow -\infty$, then $f(x) = x(x + 1)(x - 1)(x + 4) \rightarrow \infty$ and as $x \rightarrow \infty$, then $f(x) \rightarrow \infty$.