

NAME: _____

SECTION: _____

DATE: _____

IDENTIFYING POLYNOMIAL FUNCTIONS

Objective: To identify whether the relation is a polynomial function.

Remember

A **polynomial function** is a function that involves only non-negative integer powers or only positive integer exponents of a variable in an equation like the quadratic equation, cubic equation, etc. For example, $y = 2x + 5$ is a polynomial that has an exponent equal to 1. Non example is, $y = x^{-\frac{2}{3}} + 9x$, $y = 5x^{-3} - 2x^2 + 1$, because it contains negative and non-integer exponents.

DIRECTIONS: Identify whether the following are POLYNOMIAL FUNCTIONS or NOT.
Click the box and tick your answer from the choices given.

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

.

2. $y = 3x^{-6} - 7x^4 - 2x^9$

.

3. $y = -x^3 + 3x^2 - \frac{4}{x}$

.

4. $y = x^4 - 4x^2 + 2x + 4$

.

5. $y = x^5 + 3x^3 + 3$

.

6. $y = 4\sqrt{x} - x^3$

7. $y = \sqrt{2x^5} - 7x^2 + 10$

.

8. $y = (x + 1)^5(x - 1)^2$

.

9. $y = 5x^{\frac{2}{3}} + 7x - 11$

.

10. $y = -x^4 + x^3 - x^2$

.

How many attempts did you make? _____

How well did you do? _____



Need Help!



Just OK!



Splendid