Name _____   Date _____

Equation of a Straight Line- Step-by-Step Lesson

Determine if the functions listed below are linear or non-linear.

Explain your reasoning.

1. $y = -5x^6 + 2$

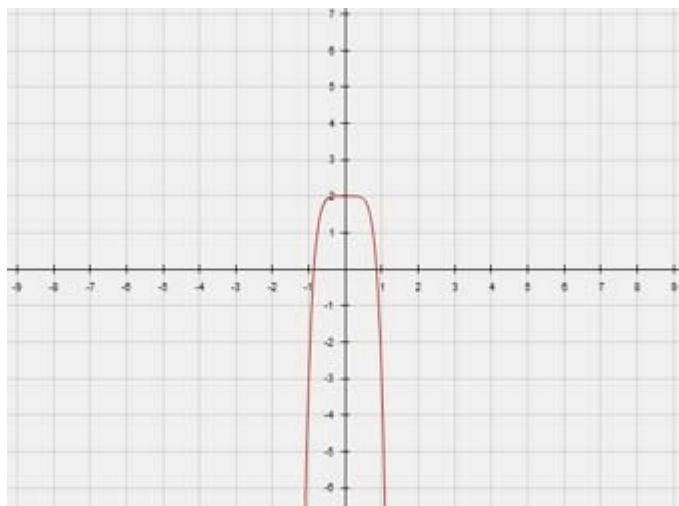2. $y = 2x - 3 + 15$

Explanation:

Linear- The equation must fit into the form $y = mx + b$

The variables cannot have exponents. When graphed they must form a straight line.

Non-linear- Equations that do not graph as a straight line.

1. This equation is $y = -5x^6 + 2$. It has an exponent 6.

It is non-linear. A graph of this equation looks like:

2. This equation is y = 2x – 3 + 15. It doesn't have an exponent.

It is linear. Here is what the graph looks like: