

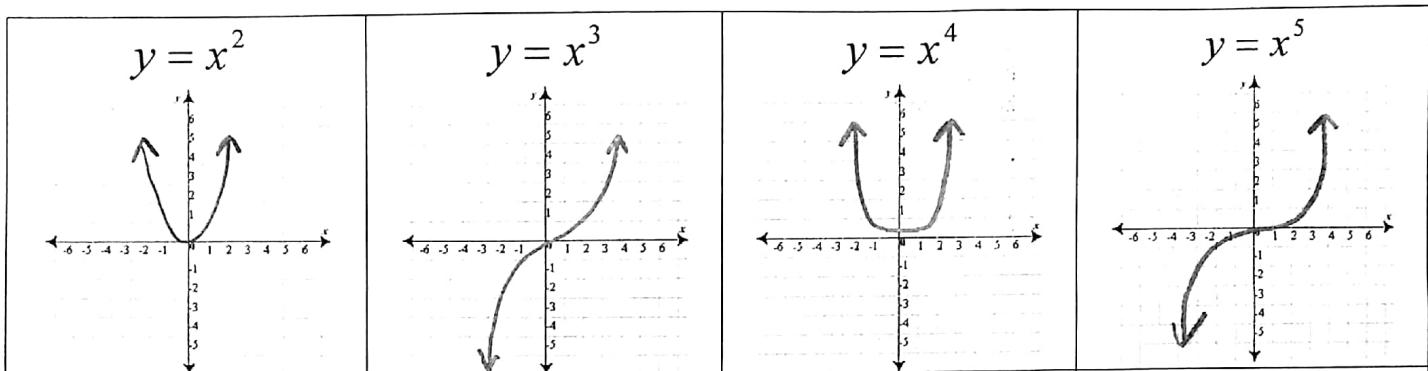
Power Functions

$$y = K \cdot x^P$$

*K and P
are constants*

Name: Key

Sketch a graph of each of the following power functions with your calculator. Answer the following questions.

Even, Odd, or Neither?
evenEven, Odd, or Neither?
oddEven, Odd, or Neither?
evenEven, Odd, or Neither?
odd

$$\lim_{x \rightarrow \infty} f(x) = \underline{\infty}$$

$$\lim_{x \rightarrow -\infty} f(x) = \underline{\infty}$$

$$\lim_{x \rightarrow -\infty} f(x) = \underline{-\infty}$$

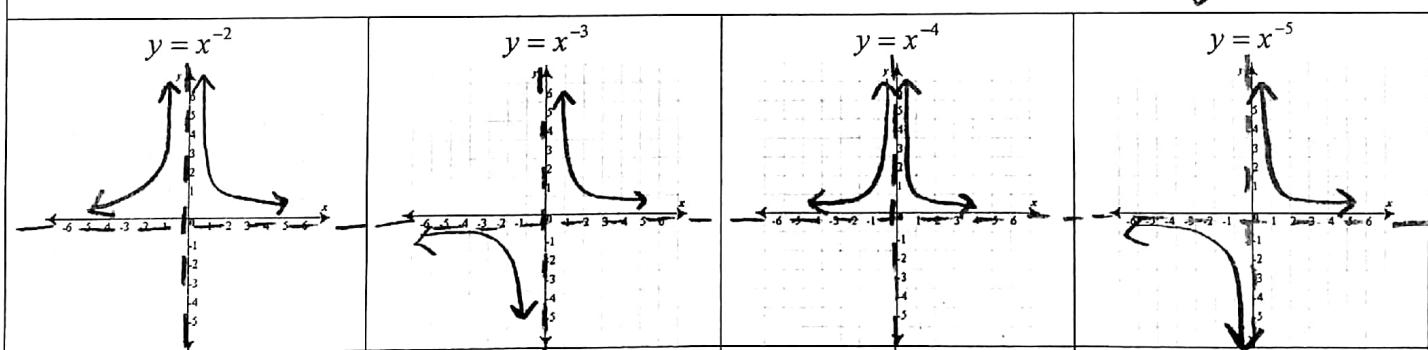
$$\lim_{x \rightarrow -\infty} f(x) = \underline{\infty}$$

$$\lim_{x \rightarrow -\infty} f(x) = \underline{-\infty}$$

How are the functions above similar/different?

pos even power

pos odd power

Even, Odd, or Neither?
evenEven, Odd, or Neither?
oddEven, Odd, or Neither?
evenEven, Odd, or Neither?
odd

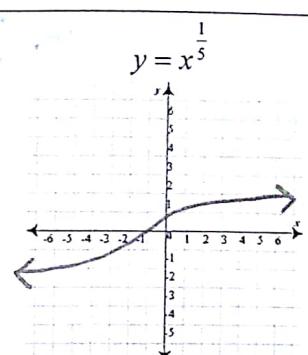
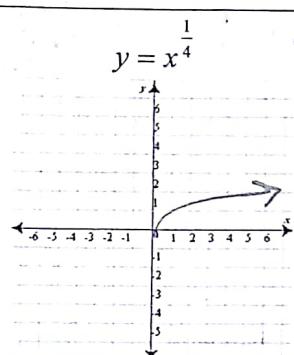
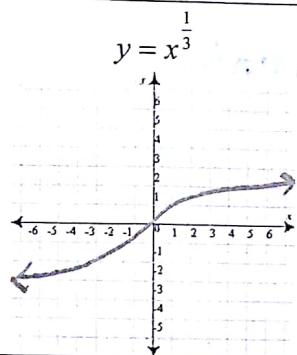
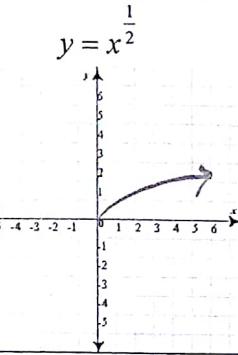
$$\lim_{x \rightarrow \infty} f(x) = \underline{0}$$

$$\lim_{x \rightarrow -\infty} f(x) = \underline{0}$$

How are the functions above similar/different?

neg even

neg odd



Even, Odd, or Neither?
neither

$$\lim_{x \rightarrow \infty} f(x) = \underline{\infty}$$

$$\lim_{x \rightarrow -\infty} f(x) = \underline{\text{DNE}}$$

Even, Odd, or Neither?
odd

$$\lim_{x \rightarrow \infty} f(x) = \underline{\infty}$$

$$\lim_{x \rightarrow -\infty} f(x) = \underline{-\infty}$$

Even, Odd, or Neither?
neither

$$\lim_{x \rightarrow \infty} f(x) = \underline{\infty}$$

$$\lim_{x \rightarrow -\infty} f(x) = \underline{\text{DNE}}$$

Even, Odd, or Neither?
odd

$$\lim_{x \rightarrow \infty} f(x) = \underline{\infty}$$

$$\lim_{x \rightarrow -\infty} f(x) = \underline{-\infty}$$

How are the functions above similar/different?

$$y = x^{\frac{1}{\text{even}}}$$

$$y = x^{\frac{1}{\text{odd}}}$$