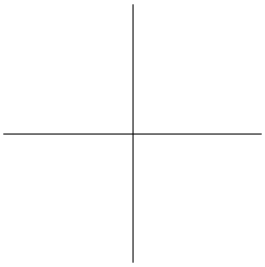
General Power Function Shapes

Activity 11.1

$y = kx^n$ where $k = 1$ and $n > 0$

$y = x^n, n$ even

General Shape:



Through: (1, ___), (−1, ___)

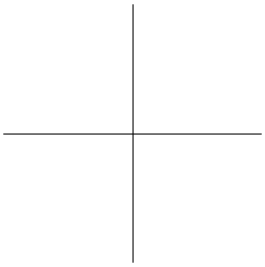
Symmetry: _____

Domain: _____ Range: _____

As $x \to -\infty, y \to$ ☐ and as $x \to \infty, y \to$ ☐

$y = x^n, n$ odd

General Shape:



Through: (1, ___), (−1, ___)

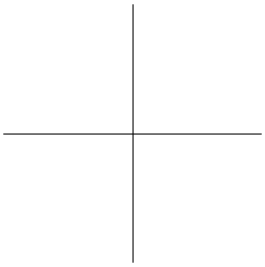
Symmetry: _____

Domain: _____ Range: _____

As $x \to -\infty, y \to$ ☐ and as $x \to \infty, y \to$ ☐

$y = \frac{1}{x^n} = x^{-n}, n$ even

General Shape:



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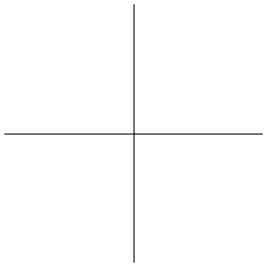


Through: (1, ___), (−1, ___)

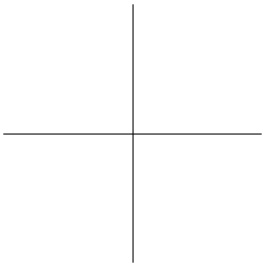
Symmetry: _____

Domain: _____ Range: _____

As $x \to -\infty, y \to$ ☐ and as $x \to \infty, y \to$ ☐

$y = x^{\frac{1}{n}}, n$ even

General Shape:



Through: (1, ___)

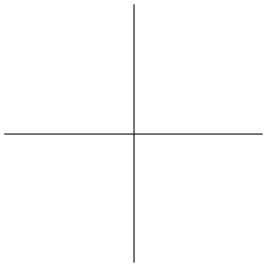
Symmetry: _____

Domain: _____ Range: _____

As $x \to \infty, y \to$ ☐

$y = x^{\frac{1}{n}}, n$ odd

General Shape:



Through: (1, ___), (−1, ___)

Symmetry: _____

Domain: _____ Range: _____

As $x \to -\infty, y \to$ ☐ and as $x \to \infty, y \to$ ☐