Sketch a graph of each equation.

1. Sketch a graph of $f(x) = x^2$

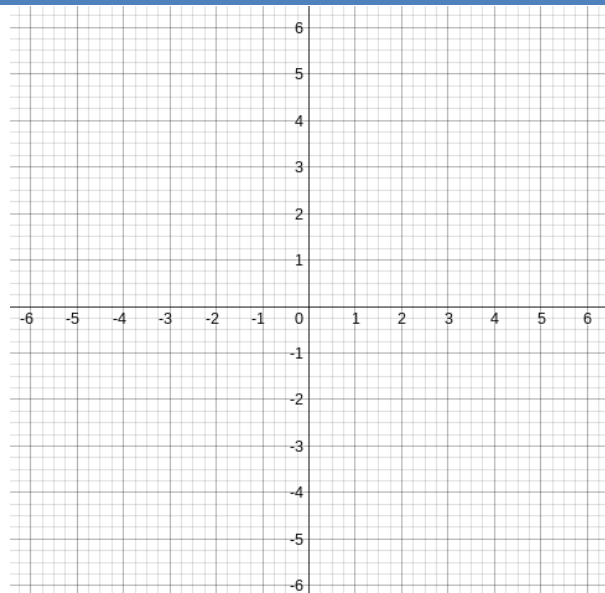   What exponent does x have?

   Is its leading coefficient positive or negative?

   x-intercepts: _____

   As $x \to = -\infty, f(x) \to$ _____

   As $x \to \infty, f(x) \to$ _____

2. Sketch a graph of $f(x) = x^3$
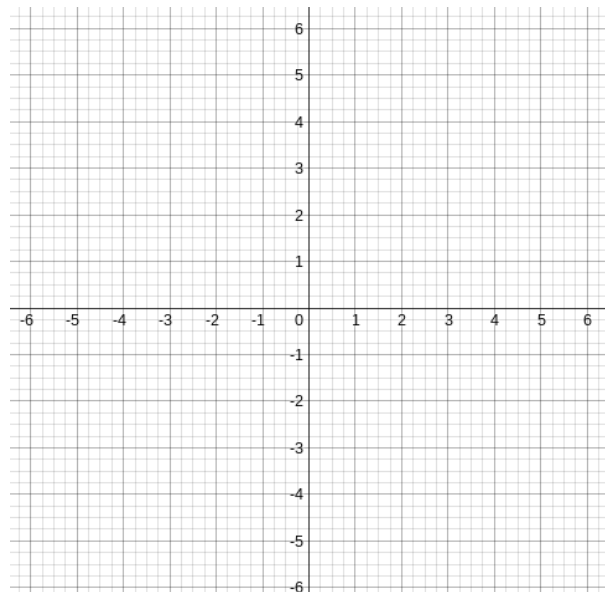
   What exponent does x have?

   Is its leading coefficient positive or negative?

   x-intercepts: _____

   As $x \to = -\infty, f(x) \to$ _____

   As $x \to \infty, f(x) \to$ _____
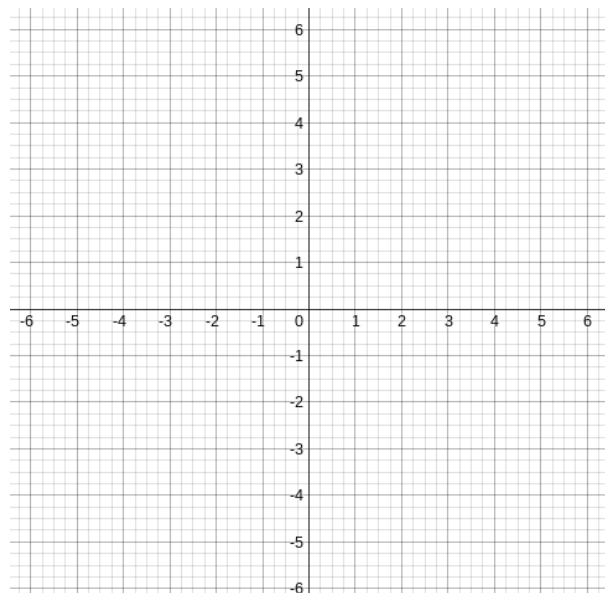
3. Sketch a graph of $f(x) = x^4$

   What exponent does x have?

   Is its leading coefficient positive or negative?

   x-intercepts: _____

   y-intercept: _____

   As $x \to = -\infty, f(x) \to$ _____

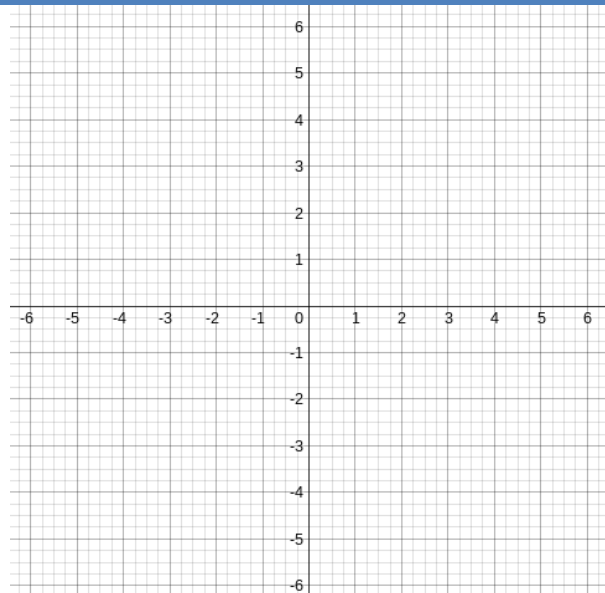   As $x \to \infty, f(x) \to$ _____

4. Sketch a graph of $f(x) = x^5$

   What exponent does x have?

   Is its leading coefficient positive or negative?

   x-intercepts: _____

   As $x \to = -\infty, f(x) \to$ _____

   As $x \to \infty, f(x) \to$ _____

5. Sketch a graph of $f(x) = -x^3$

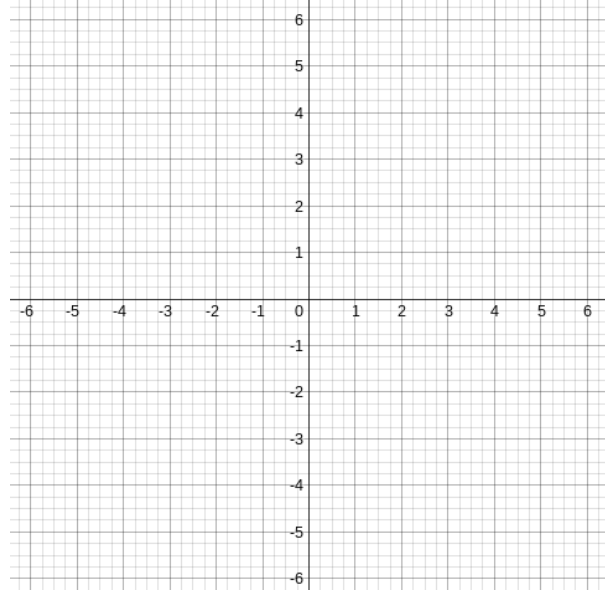   What exponent does x have?

   Is its leading coefficient positive or negative?

   x-intercepts: _____

   As $x \to = -\infty, f(x) \to$ _____

   As $x \to \infty, f(x) \to$ _____

6. Sketch a graph of $f(x) = -x^4$

   What exponent does x have?

   Is its leading coefficient positive or negative?

   x-intercepts: _____

   As $x \to = -\infty, f(x) \to$ _____

   As $x \to \infty, f(x) \to$ _____