

Some notes from class

2018-01-08

Inverse functions?

$$f(x) = 3x + 5$$

$$f^{-1}(x) = \frac{x}{3} - \frac{5}{3}$$

$$f(x) = 5^x$$

$$f^{-1}(x) = \log_5 x$$

$$f(x) = \frac{4}{x-7}$$

$$f^{-1}(x) = \frac{4}{x} + 7$$

$$f(x) = x^3$$

$$f^{-1}(x) = \sqrt[3]{x}$$

$$f(x) = \sin x$$

$$f^{-1}(x) = \sin^{-1} x$$

Inverse functions

Not inverse functions:

$$f(x) = x^3$$

$$g(x) = \frac{1}{x^3}$$

$$f(x) = \sin x$$

$$g(x) = \frac{1}{\sin x}$$

$$f(x) = 2^x$$

$$g(x) = \sqrt{x}$$

$$f(x) = 5x$$

$$g(x) = \frac{5}{x}$$