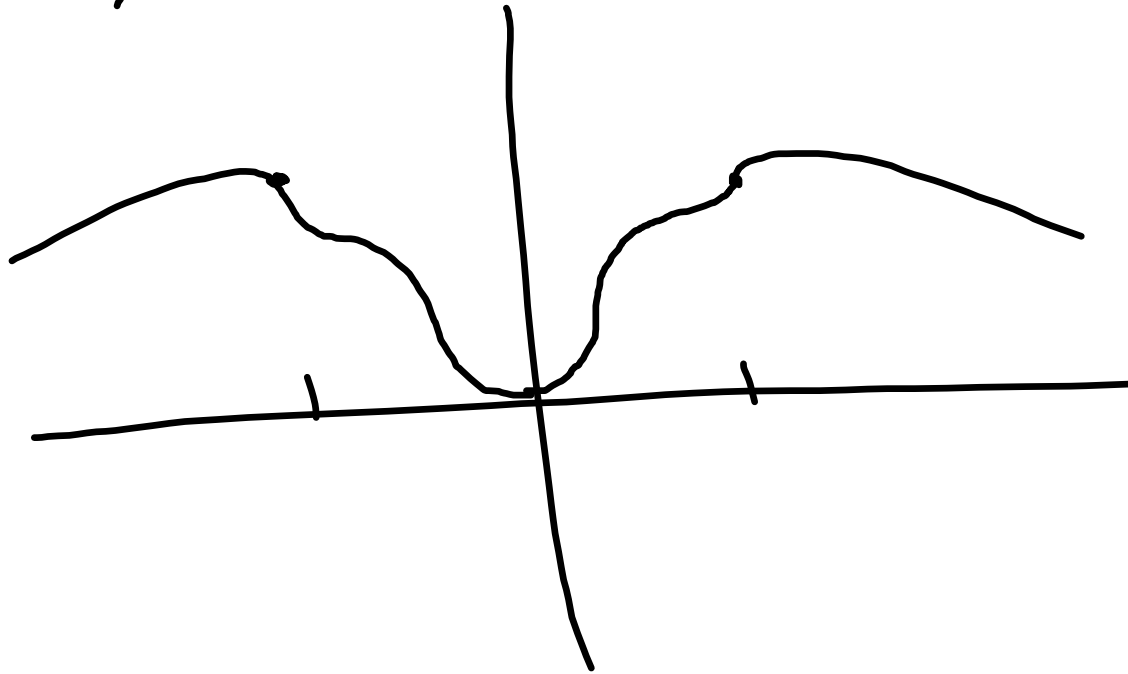


$f(x)$ is even if

$$f(-x) = f(x)$$



g is even, so
 $g(-x) = g(x)$.

$h = f \circ g$ is h always
even, odd
or?

$$h(x) = f(g(x))$$

$$h(-x) = f(g(-x)) = f(g(x)) = h(x)$$

since $g(-x) =$

so h is even.

$$g(x)$$

Exponential
functions

$$f(x) = a^x$$

$$a > 0$$

eg

$$f(x) = 3^x$$
$$f(x) = \frac{1}{2}^x$$

1.6

Defⁿ

a function is "one-to-one"

if $f(x_1) = f(x_2)$
implies

$$\Rightarrow x_1 = x_2$$

(Book $x_1 \neq x_2 \Rightarrow f(x_1) \neq f(x_2)$)

Horizontal line test:

$f(x)$ is 1-1 if no
horizontal line cuts its
graph more than once.