

## Intermediate Value Theorem (IVT)

Suppose  $f$  is a function continuous on the closed interval  $[a, b]$ . Suppose  $k$  is any real number between  $f(a)$  and  $f(b)$ . Then there is at least one real number  $c$  in  $[a, b]$  such that  $f(c) = k$ .

Illustration:

