

P. Let  $g$  be a function that is continuous  
on the interval  $[-1, 2]$ , differentiable  
on the interval  $(-1, 2)$ , and such that  
 $g(2) = 1$  and  $|g'(x)| \geq 2$

for  $x$  which  $\in (-1, 2)$ .

use the mean value theorem to prove  
that  $-5 \geq g(-1) \geq 7$ .