

**HW** Given  $y = 10 + \sqrt{x}$ ,

- a) Find the derivative  $f'(x)$ .
- b) Fill in the table

Point	X	Y	$f'(x)$
	0	10	
A	1	11	
B	2	11.414	
C	3	11.732	

- c) Does the slope increase as  $x$  increase?
- d) Approximate the change in Y when  $\Delta x = 0.2$  at  $x_1 = 3$ . Is the approximation under- or over-estimate?