

$$19. f(x) = 6x + 3$$

$$P: (5, f(5))$$

$$Q: (5+h, f(5+h))$$

Find the slope of the secant line passing through P and Q.

P

$$f(5) = 6(5) + 3$$

"

$$30 + 3$$

"

$$f(5) = 33$$

$$P: (5, 33)$$

$$Q: (5+h, 6h+33)$$

"

$$m = \frac{(6h+33) - (33)}{(5+h) - (5)}$$

$$\frac{6h + \cancel{33} - \cancel{33}}{5+h-5}$$

"

$$\frac{6h}{h}$$

$$6$$

"

$$6$$

$$6$$

$$\textcircled{6}$$

Slope is 6

Q

$$f(5+h) = 6(5+h) + 3$$

"

$$30 + 6h + 3$$

$$30 + \cancel{3} + 6h$$

$$f(5+h) = 6h + 33$$