

$$f(x) = x^3 - 9$$

Secant Search

k	x_{k-1}	x_k	x_{k+1}	$f(x_{k+1})$	E_A
1	3	5			
2					
3					

Newton Search

k	x_{k-1}	x_k	$f(x_k)$	E_A
1	8			
2				
3				

$$x_{i+1} = x_i - \frac{f(x_i)}{f'(x_i)} \qquad x_{i+1} = x_i - \frac{(x_{i-1} - x_i)}{(f(x_{i-1}) - f(x_i))} f(x_i)$$