

Ejercicios de razones de diferencia:

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$
1	2	6	1	0
2	8	9	1	
4	26	12		
5	38			

solución:  
 $f(x) = x^2 + 3x - 2$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$	
-2	-8	0	1	0	0
-1	-8	4	1	0	
2	4	8	1		
3	12	11			
5	34				

solución:  
 $f(x) = -x^2 + 3x - 6$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$	
-2	-8	0	1	0	0
-1	-8	4	1	0	
2	4	8	1		
3	12	11			
5	34				

solución:  
 $f(x) = -x^2 + 5x + 3$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$	
1	-3	7	-1	1	
-2	-24	4	3		
4	0	25			
5	25				

solución:  
 $f(x) = x^3 - 4x^2$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$	
-3	126	-59	18	-4	0
-1	8	-5	-10	-4	
0	3	-55	-34		
4	-217	-225			
5	-442				

solución:  
 $f(x) = -4x^3 + 2x^2 + x + 3$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$
1	2	6	1	0
2	8	10	1	
5	38	12		
4	26			

solución:  
 $f(x) = x^2 + 3x - 2$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$	
0	-2	7	1	0	0
4	26	12	1	0	
5	38	10	1		
2	8	6			
1	2				

solución:  
 $f(x) = x^2 + 3x - 2$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$	
-3	-2	-2	1	0	
-2	-4	2	1		
1	2	8			
4	26				

solución:  
 $f(x) = x^2 + 3x - 2$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$	
4	26	8	1	0	
1	2	1	1		
-3	-2	-2			
-2	-4				

solución:  
 $f(x) = -2 + 3x + x^2$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$	
5	38	9	1	0	0
1	2	8	1	0	0
4	26	9	1	0	0
2	8	5	1	0	
0	-2	0	1		
-3	-2	-2			
-2	-4				

solución:  
 $f(x) = -2 + 3x + x^2$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$	
1	6.2	5	7	1	0.2
2	11.2	26	4	0	
4	63.2	10	4		
-2	3.2	-22			
-4	47.2				

solución:

$$f(x) = x^4 / 5 + 2x + 4$$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$	
-3	126	-71	-2	-4	0
5	-442	-75	-14	-4	
-1	8	-5	-10		
0	3	-55			
4	-217				

solución:

$$f(x) = 3 + x + 2x^2 - 4x^3$$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$	
0	0	12	-2	1	0
-2	-24	4	3	1	
4	0	25	4		
5	25	5			
-1	-5				

solución:

$$f(x) = x^3 - 4x^2$$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$	
5	-6.25	-38.25	-9.25	-1.75	-0.25
4	32	8	3	-1.25	
0	0	-10	4.25		
-2	20	2.75			
3	33.75				

solución:

$$f(x) = -x^4 / 5 + 6x^2$$

$x_i$	$f_i$	$f [x_i, x_{i+1}]$	$f [x_i, x_{i+1}, x_{i+2}]$	$f [x_i, \dots, x_{i+3}]$	
0	2	-4	4	1	0
1	-2	8	8	1	
3	14	32	5		
4	46	7			
-2	4				

solución:

$$f(x) = 2 - 5x + x^3$$