Diego Sanches Neri dos Santos - 21.1.8003

(1)

$$u(x) = y_0 + \frac{y_1 - y_0}{x_1 - x_0}(x - x_0)$$

$y_0 = 39,2053$

$y_1 = -4,1482$

$x_0 = 8,1710$

$x_1 = -2,7101$

$$u(x) = 39,2053 + \frac{(-4,1482 - 39,2053)}{(-2,7101 - 8,1710)}(x - 8,1710)$$

$$u(x) = 39,2053 + \frac{(-43,3535)}{(-10,8811)}(x - 8,1710)$$

$$u(x) = 39,2053 + (3,9884x - 32,5556)$$

$$\boxed{u(x) = 3,9884x + 6,6496}$$

(2)

$$u(x) = 0,2369 + \frac{(-8,4783 - 0,2369)}{(-5,2367 - 7,6784)}.(x - 7,6784)$$

$y_0 = 0,2369$

$y_1 = -8,4783$

$x_0 = 7,6784$

$x_1 = -5,2367$

$$\boxed{u(x) = 0,67480x - 4,94453}$$

(3)

$$u(x) = 0,3356 + \frac{(-0,0214 - 0,3356)}{(-6,7271 - 3,7796)}(x - 3,7796)$$

$y_0 = 0,3356$

$y_1 = -0,0214$

$x_0 = 3,7796$

$x_1 = -6,7271$

$$\boxed{u(x) = 0,03397x + 0,20717}$$

(4)

$$u(x) = 16,4650 + \frac{(77,7867 - 16,4650)}{(-4,1909 - 1,2867)}(x - 1,2867)$$

$y_0 = 16,4650$

$y_1 = 77,7867$

$x_0 = 1,2867$

$x_1 = -4,1909$

$$\boxed{u(x) = -11,19499x + 30,86959}$$