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CÁLCULO NUMÉRICO - Actividad 3er Parcial

Diferencias Divididas de Newton

```
P(x) =  0       +0.462098(x-1)  -0.0518731(x-1)(x-4)
+0.00786552(x-1)(x-4)(x-6)

f(2) = 0.628769
```

```
P(x) =  0.7651  -0.483667(x-1)  -0.108333(x-1)(x-1.3) +
0.0648143(x-1)(x-1.3)(x-1.6)    +0.00308743(x-1)(x-1.3)
(x-1.6)(x-1.9)
```

Hermite

```
H(x) =  0.62    -0.52(x-1.3)    -0.155555(x-1.3)(x-1.3) +0.259259(x-1.3)(x-1.3)(x-1.6)
-0.555553(x-1.3)(x-1.3)(x-1.6)(x-1.9)      -0.258377(x-1.3)(x-1.3)(x-1.6)(x-1.9)(x-1.9)

f(1.5) = 0.508017
```

Gauss-Seidel y Jacobi

```
Gauss-Seidel:
 x = 3
 y = -2.5
 z = 7

Jacobi:
 x = 3
 y = -2.5
 z = 7
```

Krilov

```
 Con Krilov:
 b0(1 0 0) + b1(5 -2 0) + b2(29 -16 2) =
 -(177 -108 18)

 Con Gauss-Seidel:
 b1 = -6
 b2 = 18
 b3 = -9
```

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Faddeev

```
b3 = 1
b2 = -10
b1 = 4
b0 = -40

x^3 + -10x^2 + 4x + -40
```

```
b3 = 1
b2 = -6
b1 = -15
b0 = -8

x^3 + -6x^2 + -15x + -8
```

Euler

```
y0 = 0.5
y1 = 0.8
y2 = 1.152
y3 = 1.5504
y4 = 1.98848
y5 = 2.45818
y6 = 2.94981
y7 = 3.45177
y8 = 3.95013
y9 = 4.42815
y10 = 4.86579
```

```
y0 = 1
y1 = 5.25
y2 = 5.875
y3 = 5.125
y4 = 4.5
y5 = 4.75
y6 = 5.875
y7 = 7.125
y8 = 7
```

Runge-Kutta

```
y0 = 0.5
y1 = 0.829293
y2 = 1.21408
y3 = 1.64892
y4 = 2.1272
y5 = 2.64082
y6 = 3.17989
y7 = 3.73234
y8 = 4.28341
y9 = 4.81509
```