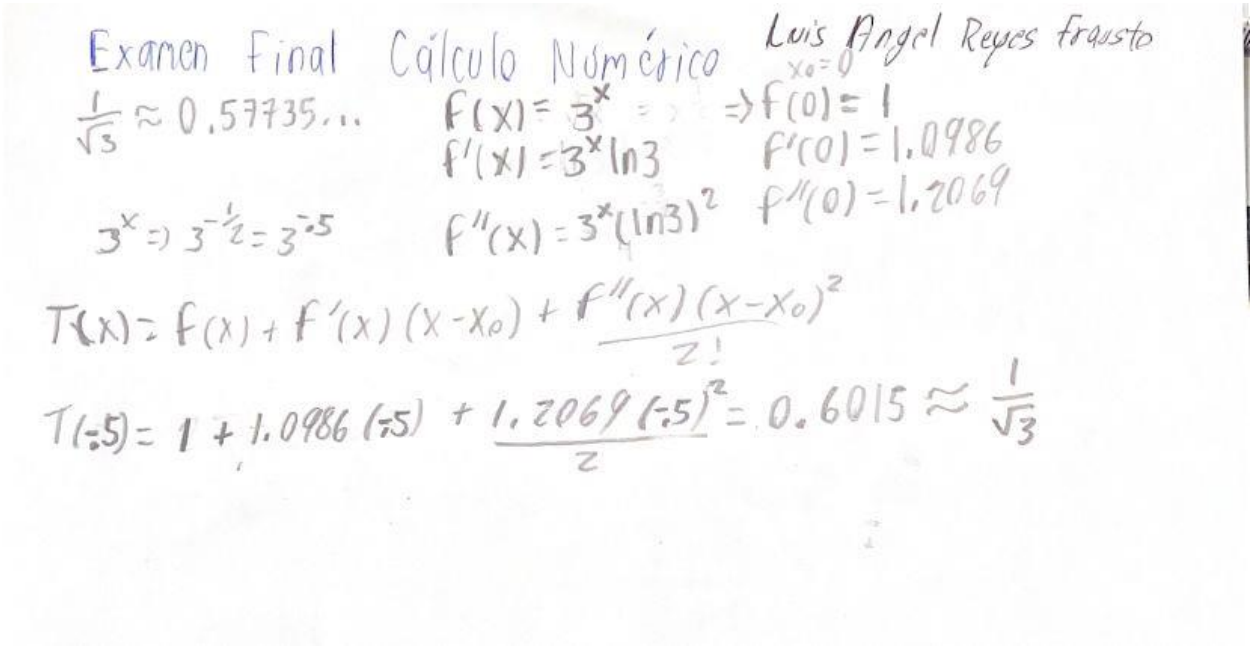
EXAMEN FINAL CALCULO NUMÉRICO.

1.



2.

```
cpp -o NewtonRaphson } ; if ($?) { .\NewtonRaphson
}

NEWTON RAPHSON:
0.567143

PS C:\Users\luisa\OneDrive - up.edu.mx\Documents\UP
```

3.

```
 Hermite } ; if ($?) { .\Hermite }

H(x) =  17.5649 + 3.11626(x-8.3) + 0.0594671(x-8.3)
(x-8.3) - 2.36165e-039(x-8.3)(x-8.3)(x-8.6)

PS C:\Users\luisa\OneDrive - up.edu.mx\Documents\UP
```

4.

Si, porque la matriz del sistema de ecuaciones es diagonalmente dominante, las magnitudes de los coeficientes y las constantes están equilibradas, lo que significa que convergerán.

```
} ; if ($?) { .\Metodo_Jacobi-GS }

Gauss-Seidel:
 x = 1
 y = 1
 z = 1

Jacobi:
 x = 1
 y = 1
 z = 1

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```

5.

```
addeev }

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

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

PS C:\Users\luisa\OneDrive - up.edu.mx\Documen
```

6.

Euler

```
uler } ; if ($?) { .\Euler }

y0 = 1
y1 = 1.2
y2 = 1.4281
y3 = 1.68874
y4 = 1.98739

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```

Runge Kutta

```
-o RungeKutta } ; if ($?) { .\RungeKutta }

y0 = 1
y1 = 1.21588
y2 = 1.46755
y3 = 1.76236

PS C:\Users\luisa\OneDrive - up.edu.mx\Documents\UP
```