Los resultados para los ejercicios:

**Ejercicio 1:**

La primera derivada para x=2.36 es: f'(2.36)= 0.424

La segunda derivada para x=2.36 es: f''(2.36)= -0.2

**Ejercicio 2:**

En x=1, g(0.08)= 0.36828125

En x=1, g(0.16)= 0.3296484375

Entonces el valor para f''(1)=G= 0.381158854167

**Ejercicio 3:**

|  |  |
| --- | --- |
| Theta | Aceleración angular |
| 0 | 4.03288380705 |
| 5 | 8.0657676141 |
| 10 | 8.13049304122 |
| 15 | 8.2359371797 |
| 20 | 8.37829462006 |
| 25 | 8.55193318082 |
| 30 | 8.74911838688 |
| 35 | 8.95970618527 |
| 40 | 9.1708472308 |
| 45 | 9.36676172491 |
| 50 | 9.5286584056 |
| 55 | 9.63488021539 |
| 60 | 9.66135620242 |
| 65 | 9.58241792477 |
| 70 | 9.37199501555 |
| 75 | 9.00514035535 |
| 80 | 8.45976069886 |
| 85 | 7.71836234335 |
| 90 | 6.76958640949 |
| 95 | 5.60932309703 |
| 100 | 4.24126363034 |
| 105 | 2.67685813754 |
| 110 | 0.934766768701 |
| 115 | -0.960016046951 |
| 120 | -2.97714573229 |
| 125 | -5.08182634929 |
| 130 | -7.23550788328 |
| 135 | -9.39637205305 |
| 140 | -11.5197026103 |
| 145 | -13.5583157755 |
| 150 | -15.4632606982 |
| 155 | -17.1849776136 |
| 160 | -18.6750210493 |
| 165 | -19.8883269208 |
| 170 | -20.7858494446 |
| 175 | -37.7554000011 |

**Ejercicio en clase:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| α (grados) | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| (rad/s) | -32.01 | -34.51 | -35.94 | -35.44 | -33.52 | -30.81 | -27.86 |