

Semana 6

1)

$$n = 1100$$

$$t = 60 \text{ seg}$$

$$T = ?$$

$$N = ?$$

$$T = \frac{t}{n}$$

$$N = \frac{1}{T}$$

$$T = \frac{60 \text{ seg}}{1100} = \underline{0.054 \text{ seg}}$$

$$N = \frac{1}{0.054} = \underline{20 \text{ Hz}}$$

2)

$$n = 150$$

$$t = 60$$

$$T = ?$$

$$T = \frac{t}{n}$$

$$T = \frac{60}{150} = \underline{0.4 \text{ seg}}$$

3)

$$t = 15 \text{ seg}$$

$$n = 4$$

$$\theta = 1440^\circ$$

$$W = \frac{\theta}{t}$$

$$W = \frac{1440^\circ}{15 \text{ seg}} = \underline{W = 96 \text{ grad/seg}}$$

$$T = \frac{t}{n}$$

$$W = \frac{2\pi \text{ rad}}{T}$$

$$T = \frac{15}{4} = 3.75 \text{ seg}$$

$$W = \frac{2(3.14) \text{ rad}}{3.75 \text{ seg}}$$

$$\underline{W = 1.67 \text{ radianes/seg}}$$

4) $n = 80$

$$t = 60 \text{ seg}$$

$$T = ?$$

$$W = ?$$

$$\theta = 28,800$$

$$W = \frac{\theta}{t}$$

$$W = \frac{2\pi \text{ rad}}{T}$$

$$W = \frac{28,800}{60}$$

$$\underline{W = 480 \text{ grad/seg}}$$

$$W = \frac{2(3.14) \text{ rad}}{0.75 \text{ seg}}$$

$$\underline{W = 8.38 \text{ rad/seg}}$$

$$T = \frac{t}{n}$$

$$T = \frac{60}{80} = \underline{T = 0.75 \text{ segundos}}$$

$$5) n = 121$$

$$t = 60 \text{ seg}$$

$$T = ?$$

$$T = \frac{t}{n}$$

$$T = \frac{60 \text{ seg}}{121}$$

$$\underline{T = 0.50 \text{ seg}}$$

$$6) n = 3$$

$$t = 8 \text{ seg}$$

$$\theta = 1.080 \text{ grados}$$

$$W = \frac{\theta}{t}$$

$$T = \frac{t}{n}$$

$$T = \frac{8 \text{ seg}}{3}$$

$$W = \frac{1.080 \text{ grad}}{8 \text{ seg}}$$

$$T = 2.67 \text{ seg}$$

$$\underline{W = 135 \text{ grad/seg}}$$

$$W = \frac{2\pi \text{ rad}}{T}$$

$$W = \frac{2(3.14) \text{ rad}}{2.67 \text{ seg}}$$

$$\underline{W = 2.35 \text{ rad/seg}}$$

$$7) n = 3.200$$

$$t = 60 \text{ seg}$$

$$\theta = 1.152.000^\circ$$

$$T = \frac{t}{n}$$

$$\underline{T = 0.19 \text{ seg}}$$

$$T = \frac{60}{3.200}$$

$$W = \frac{2\pi \text{ rad}}{T}$$

$$W = \frac{\theta}{t}$$

$$W = \frac{2(3.14) \text{ rad}}{0.19 \text{ s}}$$

$$W = \frac{1.152.000^\circ}{60 \text{ s}}$$

$$\underline{W = 19.200 \text{ grad/seg}}$$

$$\underline{W = 33.07 \text{ rad/seg}}$$

$$8) n=4$$

$$T=12 \text{ seg}$$

$$\theta = 1.440$$

$$T = \frac{t}{n}$$

$$T = \frac{12 \text{ seg}}{4}$$

$$T = 3 \text{ seg}$$

$$W = \frac{\theta}{T}$$

$$W = \frac{2\pi \text{ rad}}{T}$$

$$W = \frac{1.440 \text{ grad}}{12 \text{ seg}}$$

$$W = \frac{2(3.14) \text{ rad}}{3 \text{ seg}}$$

$$W = 120 \text{ grad/seg}$$

$$W = 2.09 \text{ grad/seg}$$

$$9) n=2,350$$

$$t=60 \text{ seg}$$

$$\theta = 846.000$$

$$W = \frac{\theta}{t}$$

$$W = 846.000^\circ$$

$$W = 14.100 \text{ grad/seg}$$

10)

$$T=0.7 \text{ seg}$$

$$N=? \quad t=60$$

$$T = \frac{t}{n}$$

$$N = T \cdot 2$$

$$\theta = 84 \times 360 = 30.240^\circ$$

$$N = 0.7 \text{ seg} \times 60 \times 2 =$$

$$N = 84$$

$$W = \frac{\theta}{t}$$

$$W = \frac{2\pi \text{ rad}}{T}$$

$$W = \frac{30.240 \text{ grad}}{60 \text{ seg}}$$

$$W = \frac{2(3.14) \text{ rad}}{0.7 \text{ seg}}$$

$$W = 504 \text{ grad/seg}$$

$$W = 8.98 \text{ rad/seg}$$