

Nome: Lucas Sales Salvo Petrucci

1) a)

$$T(1) = 1$$

$$T(2) = 1 + 3$$

$$T(3) = (1 + 3) + 3$$

$$T(4) = (1 + 3 + 3) + 3$$

$$\mathbf{T(n) = (n - 1) + 3}$$

b)

$$T(1) = 10$$

$$T(2) = 10 + 10$$

$$T(3) = 10 + 10 + 10$$

$$T(4) = 10 + 10 + 10 + 10$$

$$\mathbf{T(n) = 10n}$$

c)

$$T(1) = 1$$

$$T(2) = 2 * 1$$

$$T(3) = 3 * (2 * 1)$$

$$T(4) = 4 * (3 * 2 * 1)$$

$$\mathbf{T(n) = n!}$$