$$P(T) = \sum_{i=0}^{3} \rho_i \prod_{j=0, j\neq i}^{3} \frac{T - T_j}{T_i - T_j}$$

Con:

$$\begin{aligned} T_0 &= 0,\ \rho_0 = 1.792 \\ T_1 &= 20,\ \rho_1 = 1.308 \\ T_2 &= 40,\ \rho_2 = 0.801 \\ T_3 &= 60,\ \rho_3 = 0.549 \end{aligned}$$

Para $T = 50$

- Para $i = 0$:
  $$\frac{(50-20)(50-40)(50-60)}{(0-20)(0-40)(0-60)} \approx \frac{(30)(10)(-10)}{(-20)(-40)(-60)} = \frac{-3000}{48000} = -0.0625$$
- Para $i = 1$:
  $$\frac{(50-0)(50-40)(50-60)}{(20-0)(20-40)(20-60)} = \frac{(50)(10)(-10)}{(20)(-20)(-40)} = \frac{-5000}{-16000} = 0.3125$$
- Para $i = 2$:
  $$\frac{(50-0)(50-20)(50-60)}{(40-0)(40-20)(40-60)} = \frac{(50)(30)(-10)}{(40)(20)(-20)} = \frac{-15000}{-16000} = 0.9375$$
- Para $i = 3$:
  $$\frac{(50-0)(50-20)(50-40)}{(60-0)(60-20)(60-40)} = \frac{(50)(30)(10)}{(60)(40)(20)} = \frac{15000}{48000} = 0.3125$$

Ahora, sumamos los términos:

$$\begin{aligned} P(50) &= 1.792 \times (-0.0625) + 1.308 \times 0.3125 + 0.801 \times 0.9375 + 0.549 \times 0.3125 \\ &= -0.112 + 0.409 + 0.751 + 0.172 = 1.22 \end{aligned}$$

Por lo tanto, la densidad a 50ºC es **aproximadamente 1.22 N/m²**.

$$T = 0 + (1.5 - 1.792) \times (20 - 0)/(1.308 - 1.792) = 0 + (-0.292)/(-0.484) \times 20$$
$$T \approx 0 + 0.6033 \times 20 \approx 12.1^\circ\mathrm{C}$$

Así, la densidad de 1.5 N/m² ocurre a **aproximadamente 12.1°C.**