1048) $\frac{3000}{9.65} = 310.8808$

$310.8808 \times 1000 = 310880.8$ ← what he needs on his 65th birthday

$12 \times 25 = 300$ ← months until 65th birthday

$i^{(12)} = 0.08$ $\quad \frac{i^{(12)}}{12} = \frac{0.08}{12} = 0.0066667$ ← monthly interest rate

Using Financial calculator:

plug in:

$I/y = 0.66667 \quad N = 300 \quad FV = -310880.8$

CPT PMT → $\boxed{324.731}$

To calculate by hand:

$$\ddot{s}_{\overline{n}|i} = \frac{(1+i)^n - 1}{d}$$

$$v = \frac{1}{1+i} = \frac{1}{1.0066667} = 0.993377$$

$$d = 1 - v = 0.0066623$$

$$\ddot{s}_{\overline{300}|0.66667\%} = \frac{(1+0.0066667)^{300} - 1}{0.0066623} = 957.40679$$

$310880.8 = P \cdot 957.40679$

$\boxed{P = 324.71}$ $\quad$ A