

Question #84

Answer: C

$$\pi(1 + {}_2p_{80}v^2) = 1000A_{80} + \frac{\pi v q_{80}}{2} + \frac{\pi v^3 {}_2p_{80}q_{82}}{2}$$

$$\pi\left(1 + \frac{0.83910}{1.06^2}\right) = 665.75 + \pi\left(\frac{0.08030}{2(1.06)} + \frac{0.83910 \times 0.09561}{2(1.06)^3}\right)$$

$$\pi(1.74680) = 665.75 + \pi(0.07156)$$

$$\pi(1.67524) = 665.75$$

$$\pi = 397.41$$

$$\text{Where } {}_2p_{80} = \frac{3,284,542}{3,914,365} = 0.83910$$

$$\text{Or } {}_2p_{80} = (1 - 0.08030)(1 - 0.08764) = 0.83910$$