

Question #216

Key: E

$$0.75 = \frac{1}{1 + (100/\theta)^\gamma}; 0.25 = \frac{1}{1 + (500/\theta)^\gamma}$$

$$(100/\theta)^\gamma = 1/3; (500/\theta)^\gamma = 3$$

Taking the ratio of these two equalities produces $5^\gamma = 9$. From the second equality,

$$9 = [(500/\theta)^\gamma]^\gamma = 5^\gamma; (500/\theta)^\gamma = 5; \theta = 223.61$$