Question #227
Key: D

The requirement is that

$$0.01\hat{F}(1500) \geq 1.96\sqrt{\frac{\hat{F}(1500)\hat{S}(1500)}{N}}$$

$$0.0001\frac{P^2}{N^2} \geq 3.8416\frac{P(N-P)}{N^3}$$

$$\frac{NP}{N-P} \geq 38,416.$$

For the five answer choices, the left hand side is 34,364, 15,000, 27,125, 39,243, and 37,688. Only answer D meets the condition.