

## Question #148

**Key: B**

The mean is  $mq$  and the variance is  $mq(1-q)$ . The mean is 34,574 and so the full credibility standard requires the confidence interval to be  $\pm 345.74$  which must be 1.96 standard deviations. Thus,

$$345.74 = 1.96\sqrt{mq(1-q)} = 1.96\sqrt{34,574}\sqrt{1-q}$$

$$1-q = 0.9, \quad q = 0.1.$$