2002 MC #11 Homework Problem Monday 03/30

11. The following two-way table resulted from classifying each individual in a random sample of residents of a small city according to level of education (with categories "earned at least a high school diploma" and "did not earn a high school diploma") and employment status (with categories "employed full time" and "not employed full time").

	Employed full time	Not employed full time	Total
Earned at least a high school diploma	52	40	92
Did not earn a high school diploma	30	35	65
Total	82	75	157

If the null hypothesis of no association between level of education and employment status is true, which of the following expressions gives the expected number who earned at least a high school diploma and who are employed full time?

(A) $\frac{92 \cdot 52}{157}$

(B) $\frac{92 \cdot 82}{157}$

(C) $\frac{82 \cdot 52}{92}$

(D) $\frac{65 \cdot 52}{92}$

(E) $\frac{92 \cdot 52}{82}$