Question #150
Key: E

The sample average is (14 + 33 + 72 + 94 + 120 + 135 + 150 + 150)/8 = 96. The model average is $E(X \wedge 150) = \int_0^{150} x\frac{1}{\theta}dx + \int_{150}^{\theta} 150\frac{1}{\theta}dx = \frac{150^2}{2\theta} + 150\frac{\theta - 150}{\theta} = 150 - \frac{11,250}{\theta}$. The equation to solve is $150 - \frac{11,250}{\theta} = 96, \quad \frac{11,250}{\theta} = 54, \quad \theta = \frac{11,250}{54} = 208.3.$