59. An insurer's annual weather-related loss, \( X \), is a random variable with density function

\[
f(x) = \begin{cases} 
\frac{2.5(200)^{2.5}}{x^{3.5}} & \text{for } x > 200 \\
0 & \text{otherwise.}
\end{cases}
\]

Calculate the difference between the 30\(^{th}\) and 70\(^{th}\) percentiles of \( X \).

(A) 35  
(B) 93  
(C) 124  
(D) 231  
(E) 298

60. A recent study indicates that the annual cost of maintaining and repairing a car in a town in Ontario averages 200 with a variance of 260.

If a tax of 20\% is introduced on all items associated with the maintenance and repair of cars (i.e., everything is made 20\% more expensive), what will be the variance of the annual cost of maintaining and repairing a car?

(A) 208  
(B) 260  
(C) 270  
(D) 312  
(E) 374