

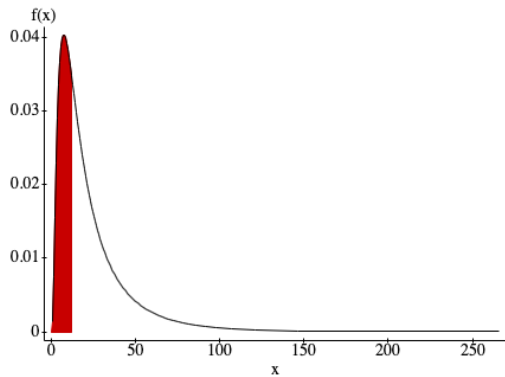
56.

a. $X = A$ certain stock's price, $X \sim \text{LN}(2.8, 0.9^2)$

b. $\text{Mean} = \exp\{2.8 + \frac{1}{2}(0.9^2)\} = 24.6555$

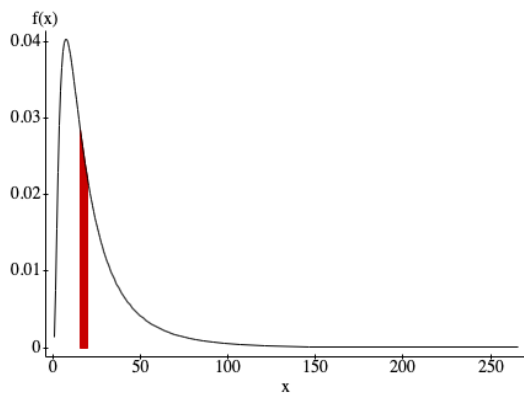
c. $\text{SD} = \sqrt{e^{2(2.8) + 0.9^2}(e^{0.9^2} - 1)} = 27.5426$

d. $P(X < 12) = 0.36313043$



Lognormal Distribution
Location:2.8 Scale:0.9
 $P(X \leq 12) = 0.36313043$

e. $P(15 < X < 20) = 0.12677069$



Lognormal Distribution
Location:2.8 Scale:0.9
 $P(15 \leq X \leq 20) = 0.12677069$