Obviously, *Montgomery's* lifespan fits the negative binomial distribution. Considering that the number of the weeks of *Montgomery's* being hit as the number of "successes" (r) and his lifespan as the number of the total trials (X) in the negative binomial distribution, and according to the expectation and variance formula derived:

$$E(X) = \frac{r}{p} \text{ and } Var(X) = \frac{r(1-p)}{p^2},$$

the expectancy and standard deviation of *Montgomery's* lifespan can be calculated:

$$E(X) = \frac{r}{p} = \frac{9}{\frac{1}{20}} = 180$$

$$Var(X) = \frac{r(1-p)}{p^2} = \frac{9(1-\frac{1}{20})}{(\frac{1}{20})^2} = 3420, and \ std(X) = \sqrt{Var(X)} \approx 58.4808.$$

Hence, the expectancy of his lifespan is 19 weeks, and the standard deviation of his lifespan is approximately 58.4808 weeks.