

BIOMETRY, CLASS EXERCISE 3

(1) A sample of 8 male ruby-throated hummingbirds had the following weights

3.3 2.9 3.8 3.9 3.6 3.3 3.1 3.3

Another sample of 8 female ruby-throated hummingbirds showed the following weights

4.2 4.3 3.4 3.9 3.6 3.4 4.0 3.6

All weight are in grams. For both samples compute (by hand, on paper) the mean, the standard deviation and the coefficient of variation. Write a sentence comparing the means and another sentence comparing the coefficients of variation.



(2) The black-throated blue warbler is a small passerine bird nesting in eastern North America, in particular in southern Quebec. These warblers winter in the Caribbean. The following data shows the times it took six black-throated blue warblers to cross the $166km$ passage from Cuba to Florida (in hours) $\{7.3\ 6.9\ 6.8\ 6.9\ 6.6\ 7.5\}$ Based on this sample compute the harmonic mean for the crossing time of a black-throated blue warbler.



(3) In the last three years a flock of wild turkeys has experienced growth of 5%, 10% and 4% respectively. If initially there were 20 wild turkeys in this flock, how many turkeys were there after one year, after two years and after three years (round to integres)? What is the average yearly growth rate of this flock over the three years?

