

Human beta-endorphin (HBE) is a hormone secreted by the pituitary gland under conditions of stress. HBE levels (pg/ml) were measured on three groups of men: 15 who had just entered a fitness program, 11 who were regular joggers, and 10 sedentary people. Also,  $SS(\text{between}) = 240.69$  and  $SS(\text{within}) = 6,887.6$ .

- (a) State null and alternative hypotheses for a test of whether or not the HBE levels are the same in each group of men.
- (b) Construct an ANOVA table and compute the F test statistic.
- (c) The  $p$ -value of the test is 0.57. Interpret the result in the context of the problem.