9. seminar

Problem 1
Sales revenues (in thousands) per month of three shop assistants were recorded during a half-year period.

1. shop assistant:	12	10	9	10	11	9
2.shop assistant:	10	12	11	12	14	13
3. shop assistant:	19	18	16	16	17	15

At the significance level 0.05 test the hypothesis that the expected values of the sales revenues are equal. If the test rejects the equality of expected values, identify that pairs of shop assistants which caused the rejection.

Problem 2
Five independent random samples of sizes 5, 7, 6, 8, 5 are given. The $i-$th sample follows normal distribution $N(\mu_i, \sigma^2),\ i = 1, \ldots, 5$. The total sum of squares and error sum of squares were calculated: $S_T = 15,\ S_E = 3$. At the significance level 0.05 test the hypothesis about equality of expected values.

Problem 3
The uncompleted ANOVA table is given. Comlete the table by replacing question marks with correct values.

Sources of variability	sum of squares	degrees of freedom	mean squares	test statistic
factor	?	2	?	?
error	$16,033$	?	?	-
total	$17,301$	35	-	-