Can you please help solve the following problems; I am having a hard time working them out. Can you also show all work. I will need it due back by Monday May 31st. Thank You.

1. The director of golf for the Links Group wishes to study the number of rounds of golf played by members on weekdays. He gathered the following sample information for 520 rounds.

**DAY Rounds**

Monday 124

Tuesday 74

Wednesday 104

Thursday 98

Friday 120

At the 0.05 significance level, is there a difference in the number of rounds played by day of the week?

1. The safety director of Honda USA took samples at random from the file of minor accidents and classified them according to the time the accident took place.

Enrollment in local colleges, 2005

|  |  |  |  |
| --- | --- | --- | --- |
| Time | Number of Accidents | Time | Number of accidents |
|  |  |  |  |

8 up to 9am 6 12 up to 1pm 7

9 up to 10am 6 1 up to 2pm 8

10 up to 11am 20 2 up to 3pm 19

11 up to 12pm 8 3 up to 4pm 6

Using the goodness of fit test and the 0.01 level of significance, determine whether the accidents are evenly distributed throughout the day.

1. In a bumper test three types of autos were deliberately crashed into a barrier at 5mph, and the resulting damage in dollars was estimated. 5 test vehicles of each type were crashed, with the results shown below .*Research Question:*Are the mean crash damages the same for these three.

|  |  |  |
| --- | --- | --- |
| GOLIATH | VARMINT | WEASEL |
| 1,600 | 1,290 | 1,090 |
| 760 | 1,400 | 2,100 |
| 880 | 1,390 | 1,830 |
| 1,220 | 950 | 1,920 |
| 1,950 | 1,850 | 1,250 |

1. A sample of employees at a large chemical plant was asked to indicate a preference for one of 3 pension plans. The results are given in the following table. Does it seem that there is a relationship between the pension plan selected and the job classification of the employees? Use the 0.01 significance level.

|  |  |  |  |
| --- | --- | --- | --- |
| JOB CLASSIFICATION | PLAN A | PLAN B | PLAN C |
| SUPERVISOR | 10 | 13 | 29 |
| CLERICAL | 19 | 80 | 19 |
| LABOR | 81 | 57 | 22 |