**Istanbul University School of Business**

**Introduction to Statistics Week 23 October and 2 November 2012 Tutorial Material**

1. The demand for bottled water increases during the hurricane season in Florida showed that the following number of 1 gallon bottles were sold in one store:

40 55 62 43 50 60 65

Find the coefficient of variation.

1. The time (in seconds) that 24 employees in 2 factories took to complete a task is as follows. In which factory are the workers more homogenoeus in terms of the time spent in completing the given task?

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Factory 1** | | | | | |  | **Factory 2** | | | | | |
| 23 | 35 | 14 | 37 | 25 | 50 |  | 30 | 35 | 23 | 37 | 28 | 32 |
| 10 | 45 | 27 | 13 | 26 | 25 |  | 25 | 25 | 27 | 22 | 31 | 25 |
| 37 | 13 | 29 | 49 | 40 | 13 |  | 35 | 27 | 29 | 29 | 34 | 25 |
| 27 | 16 | 42 | 20 | 14 | 66 |  | 27 | 26 | 36 | 26 | 24 | 38 |

1. A publisher receives from a printer a copy of a 500-page textbook. The page proofs are carefully read, and the number of errors on each page is recorded, producing the data in the following table:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Number of errors | 0 | 1 | 2 | 3 | 4 | 5 |
| Number of pages | 102 | 138 | 140 | 79 | 33 | 8 |

Find the mean and standard deviation in number of errors per page.

1. The accompanying table shows the amount of time (in hours) spent studying for 2different subjects, statistics and human resources management.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Statistics** | |  | **Human Res. Mng.** | |
| **Study time** | **Number of students** |  | **Study time** | **Number of students** |
| 0-<4 | 4 |  | 6 | 4 |
| 4-<8 | 6 |  | 7 | 7 |
| 8-<12 | 12 |  | 8 | 8 |
| 12-<16 | 8 |  | 9 | 13 |
| 16-<20 | 3 |  | 10 | 1 |

Find the sample mean study time and the standard deviation and compare the study times of the students for the 2 subjects.