

ECON 253/HW 1

Deadline: Monday, Sept 23, 2019 (by 12:00 noon the latest)

Submit answers on paper, written clearly and legibly.

- You can submit your homework in class or you can bring it to my office. Late submissions will receive a grade of zero.
- The aim of assigning homework is to increase your incentive to study and not to test you. In each question, if you attempt to answer it fully, you will get 1 point; if you do not answer it fully, you will receive no points.
- You may use a computer/calculator to answer HW questions. You will still need to write down your full answer (or copy it from your computer screen and paste it). Keep in mind that in exams, computers/calculators/cell phones will not be allowed.

(1pt) Question 1. Consider the following data showing the daily milk productions (in liters) of 30 farmers.

38	57	23	18	68	17	45	32	23	21	48	30	18	65	34
12	47	84	32	29	42	63	77	19	39	78	23	81	43	76

Using 6 data intervals of equal size,

- Construct a table which involves a frequency distribution, a relative frequency distribution, and a cumulative relative frequency distribution.
- Draw a histogram.
- Draw an ogive.

(1pt) Question 2. A random sample of 20 students have the following quiz scores.

8	2	0	10	3	9	10	2	1	0	4	2	10	8	4	7	5	1	5	9
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- Compute the mean.
- Compute the median.
- Compute the mode.
- Compute the range.
- Compute the interquartile range.
- Compute the variance and the standard deviation.

(1pt) Question 3. The following is a random sample of 7 (x, y) pairs of data points:

(1, 5) (3, 7) (4, 6) (5, 8) (7, 9) (3, 6) (5, 7)

- Compute the covariance.
- Compute the correlation coefficient.