# Livestock Breeding and Genomics - Solution 3

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## 10/15/2021

### Problem 1: Own Performance

Given is the dataset with weight observations for 12 animals. The heritability  $(h^2)$  for the trait is 0.2025. The population mean  $\mu$  can assumed to be the mean of the weights in the table below.

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| Animal | Weight |
|--------|--------|
| 1      | 285    |
| 2      | 282    |
| 3      | 278    |
| 4      | 280    |
| 5      | 281    |
| 6      | 282    |
| 7      | 285    |
| 8      | 282    |
| 9      | 281    |
| 10     | 287    |
| 11     | 281    |
| 12     | 282    |

#### Your Tasks

- Compute the breeding values for all animals given in the table above
- Compute the accuracies of the breeding values of all animals shown in the table above.