99.7% of data are within 3 standard deviations of the mean ($\bar{x} - 3s$ to $\bar{x} + 3s$)

95% within 2 standard deviations

68% within 1 standard deviation

0.1%   2.4%   13.5%   34%   34%   13.5%   2.4%   0.1%

$\bar{x} - 3s$   $\bar{x} - 2s$   $\bar{x} - s$   $\bar{x}$   $\bar{x} + s$   $\bar{x} + 2s$   $\bar{x} + 3s$
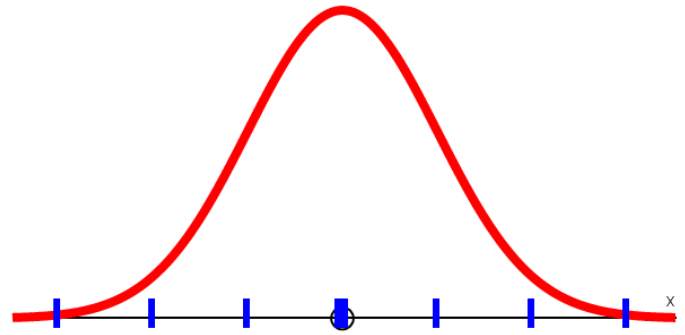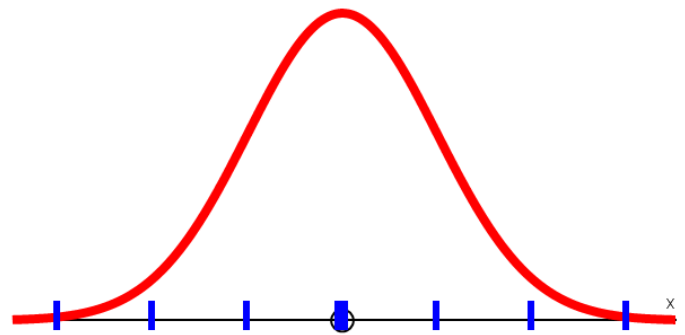
Consider a data set of $z$-scores with
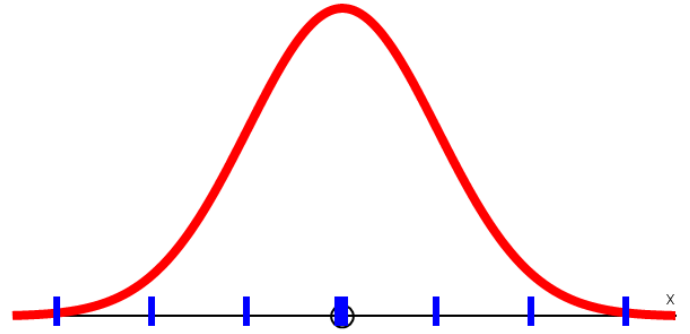$\bar{x} = 0$
$s = 1$

What proportion of the data lies:

| 1. | below a $z$-score = 2 |  |
|---|---|---|
| 2. | between a $z$-score = -1 and 2 |  |

| | |
|---|---|
| 3. above a *z*-score = -1 |  |
| 4. between a *z*-score = -2 and 1 |  |