4. You are trying to develop a strategy for investing in two different stocks. The anticipated annual return for $1000 investment in each stock under four different economic conditions has the following probability distribution:

|  |  |  |
| --- | --- | --- |
|  |  | Returns |
| Probability | Economic Condition | Stock X (in $’s) | Stock Y (in $’s) |
| 0.1 | Recession | - 50 | - 100 |
| 0.3 | Slow growth |  20 |  50 |
| 0.4 | Moderate growth |  100 |  130 |
| 0.2 | Fast growth |  150 |  200 |

Note: Return means the net change in your initial investment ($1000) after a year, for example, Return=-100 (negative return), it means that after one year, your wealth become $900.

1. Compute the expected return for stock X and for stock Y.
2. Compute the standard deviation for stock X and for stock Y.