

# Simulation Exercise

Create a simple spreadsheet with cells for revenue, costs and profit. (profit = revenue - costs)

revenue	100
costs	<u>75</u>
profit	25

Revenue is a probabilistic random variable modeled by a **normal** distribution with a mean of 100 and a standard deviation of 5. [=NORMINV(RAND(), $\mu$ , $\sigma$ )]

Cost is a **uniform** random variable with a range of 50 to 75. [=a + (b-a)\*RAND() | where a = min and b = max]

Simulate the profit function for 100 replications. Determine the expected value, the standard deviation, plot the cumulative distribution and calculate the 95% confidence interval for the expected value.