Q1. The Time it takes an international telephone operator to place an overseas phone call is normally distributed with mean 45 seconds and standard deviation 10 seconds.

1. What is the probability that the call will go through in less than 1 minute?
2. What is the probability that the call will go through in less than 40 seconds?
3. What is the probability that one has to wait more than 70 seconds??

Q2. A restaurant has three sources of revenues: eat-in-orders, takeout orders, and the bar. The daily revenue from each source is normally distributed with mean and standard deviation

|  |  |  |
| --- | --- | --- |
| Revenue Stream | Mean | Standard Deviation |
| Eat-In | $5780 | $142 |
| Take-out | $641 | $78 |
| Bar | $712 | $72 |

1. Will the total revenue be normally distributed ?
2. What are the mean and standard deviation of the total revenue ?
3. What is the probability that the total revenue will exceed $7000 ?