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In [1]:  from scipy import stats
        from scipy.stats import norm
```

Let 'X' be the amount of time it takes to complete the repair on a customer's car. So the Probability of completing the car repair with 1 hr of dropping the car and starting the work after 10 mins of car drop (60 mins - 10 mins) is $P(X \leq 50 \text{ mins})$ So, $P(X > 50) = 1 - P(X \leq 50)$ i.e. cannot meet his commitment

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In [2]:  # Find Z-Scores at X=50; Z = (X - μ) / σ
        Z=(50-45)/8
        Z
```

Out[2]: 0.625

```
In [3]:  # Find probability P(X>50) = 1-stats.norm.cdf(abs(z_score))
        1-stats.norm.cdf(abs(0.625))
```

Out[3]: 0.26598552904870054

```
In [4]:  # OR Find probability P(X<=50); p_value=stats.norm.cdf(abs(z_score))
        p_value=stats.norm.cdf(abs(0.625))
        p_value
```

Out[4]: 0.7340144709512995

```
In [5]:  # P(X>50) = 1 - P(X<=50)
        1-0.734
```

Out[5]: 0.266