

Number of Trials (n): 3
Probability of Success (p): 0.3

x	f(x)	Cumulative Probabilitiy	
0		0.343	0.343
1		0.441	0.784
2		0.189	0.973
3		0.027	1

Number of Arrivals	Probability, $f(x)$	Cumulative Probability	
0	0.0000454	0.00004540	
1	0.0004540	0.00049940	
2	0.0022700	0.00276940	
3	0.0075667	0.01033605	
4	0.0189166	0.02925269	
5	0.0378333	0.06708596	
6	0.0630555	0.13014142	
7	0.0900792	0.22022065	
8	0.1125990	0.33281968	
9	0.1251100	0.45792971	
10	0.1251100	0.58303975	
11	0.1137364	0.69677615	
12	0.0947803	0.79155648	
13	0.0729079	0.86446442	
14	0.0520771	0.91654153	
15	0.0347181	0.95125960	
16	0.0216988	0.97295839	
17	0.0127640	0.98572239	
18	0.0070911	0.99281350	
19	0.0037322	0.99654566	
20	0.0018661	0.99841174	

Mean	36500
Standard Deviation	5000

$P(x \leq 40,000) =$	0.758036
$P(x > 40,000) = 1 - P(X \leq 40,000) =$	0.241964

**Guarantee of Lifetime Flight Hours for
10% of engines eligible for discount
guarantee:**

$P(30,000 \leq x \leq 40,000)$	0.758036
	0.0968
	0.661236

Mean, μ = 15

$P(x \leq 18) = 0.698806$

$P(x \leq 6) = 0.32968$

$P(x \leq 6 \leq 18) = P(x \leq 18) - P(x \leq 6) = 0.369126$