

## Ratthamnoon Prakitpong #63205165

1.

For both options, total profit is made up of 3 parameters:

Total profit (\$) = Total revenue (\$) – Production cost (\$) – Shipping cost (\$)

Option 1 equations for each parameters:

Production cost (\$) = Produce total (kg) \* Production cost (\$/kg)

Shipping cost (\$) = Produce total (kg) \* Shipping cost(\$/kg)

Total revenue (\$) = Caught outcome given uniform range of probability of getting caught \*  
Some sales price from normal distribution,  
looped by number of shipments  
$$= \sum \text{Number of shipments} = \text{Produce total (kg)} / \text{Cocaine per shipment (kg)} \text{ (IF(RAND() > RANDBETWEEN(Uniform chance caught, lower (%), Uniform change caught, upper (%)), 1, 0) * NORM.INV(RAND(), Sales price ($), Sale price stddev ($)))}$$

Option 2 equations for each parameters:

Production cost (\$) = Produce total (kg) \* Production cost (\$/kg)

Shipping cost (\$) = Produce total (kg) \* Shipping cost(\$/kg)

Total Revenue (\$) = Caught outcome given fixed probability of getting caught \*  
Some sales price from normal distribution,  
looped by number of shipments  
$$= \sum \text{Number of shipments} = \text{Produce total (kg)} / \text{Cocaine per shipment (kg)} \text{ (IF(RAND() > Chance caught (%)), 1, 0) * NORM.INV(RAND(), Sales price ($), Sale price stddev ($)))}$$

We will assume that shipment will be paid whether shipping is successful or not (we don't want a mutiny within ranks). We can put given information and derived formula into some sheet software and repeat it 250 times:

Option 1 simulation sample:

|    | A  | B        | C | D            | E             | F        | G             | H             | I        | J             | K             | L        | M            | N             | O        | P             | Q             | R        | S             | T             | U                 |
|----|--|----------|---|--------------|---------------|----------|---------------|---------------|----------|---------------|---------------|----------|--------------|---------------|----------|---------------|---------------|----------|---------------|---------------|-------------------|
| 1  | Given  |          |   | Simulation   |               |          |               |               |          |               |               |          |              |               |          |               |               |          |               |               |                   |
| 2  | Produce total (kg)                                 | 5000     |   | Shipment num | 1             |          |               |               |          |               |               |          |              |               |          |               |               |          |               |               |                   |
| 3  | Production cost (\$/kg)                            | 2000     |   | Simulation n | Failure proba | Success? |               |               |          |               |               |          |              |               |          |               |               |          |               |               |                   |
| 4  | Cocaine per shipment (kg)                          | 1000     |   | Simulation n | Failure proba | Success? | Sale price    | Failure proba | Success? | Sale price    | Failure proba | Success? | Sale price   | Failure proba | Success? | Sale price    | Failure proba | Success? | Sale price    | Total revenue | Total profit (\$) |
| 5  | Shipping cost (\$/kg)                              | 500      |   | 1            | 11            |          | 114033.76091  | 15            |          | 19373.463389  | 14            |          | 115599.96243 | 6             |          | 111316.30595  | 6             |          | 112161.03331  | 62484526      | 49994526          |
| 6  | Uniform chance caught (%), lower                   | 5        |   | 2            | 11            |          | 112274.91001  | 7             |          | 111111.87704  | 13            |          | 119483.76882 | 10            |          | 116696.58035  | 8             |          | 116976.40998  | 76543546.2    | 64043546.2        |
| 7  | Uniform chance caught (%), upper                   | 15       |   | 3            | 11            |          | 114718.94075  | 7             |          | 112716.33182  | 15            |          | 114926.28197 | 5             |          | 118595.1275   | 12            |          | 113772.661    | 62013011.23   | 496513011.23      |
| 8  | Sales price (\$)                                   | 14000    |   | 4            | 7             |          | 118543.07901  | 8             |          | 113656.79951  | 12            |          | 112465.62331 | 12            |          | 112642.63986  | 13            |          | 118187.00544  | 75505087.14   | 63005087.14       |
| 9  | Sales price stddev (\$)                            | 3000     |   | 5            | 6             |          | 118512.22972  | 6             |          | 114411.49261  | 10            |          | 113414.57987 | 6             |          | 116057.64177  | 8             |          | 112511.60104  | 74907545      | 62407545          |
| 10 | Assumption   |          |   | 6            | 6             |          | 116341.28911  | 14            |          | 112406.33448  | 6             |          | 113705.70416 | 13            |          | 119982.39796  | 13            |          | 110248.29506  | 72684020.77   | 60184020.77       |
| 11 | Pay for transport whether it's failed or succeeded |          |   | 7            | 13            |          | 110401.37495  | 10            |          | 111570.05117  | 11            |          | 117881.01127 | 7             |          | 118439.85891  | 5             |          | 113170.01002  | 71462306.32   | 58962306.32       |
| 12 | Calculated   |          |   | 8            | 15            |          | 113398.55851  | 10            |          | 114643.11193  | 7             |          | 110507.32462 | 11            |          | 118362.81775  | 13            |          | 114616.63687  | 81528457      | 69028457          |
| 13 | Production cost (\$)                               | 10000000 |   | 9            | 5             |          | 0.8169.623192 | 5             |          | 117370.31578  | 6             |          | 110490.57664 | 11            |          | 113551.67642  | 10            |          | 115480.40765  | 65903312.48   | 53403312.48       |
| 14 | Shipping cost (\$)                                 | 2500000  |   | 10           | 15            |          | 113166.64851  | 9             |          | 111937.92355  | 11            |          | 110269.1932  | 12            |          | 115198.28049  | 12            |          | 112992.3374   | 63564583.15   | 51064583.15       |
| 15 | Number of shipments                                | 5        |   | 11           | 7             |          | 114842.30343  | 5             |          | 113969.86507  | 5             |          | 116237.718   | 5             |          | 116780.45763  | 12            |          | 114036.82218  | 75867166.31   | 63367166.31       |
| 16 | Total cost (\$)                                    | 12500000 |   | 12           | 14            |          | 112175.78446  | 12            |          | 0.14642.8829  | 12            |          | 119504.79691 | 7             |          | 115730.36609  | 14            |          | 114964.35814  | 71975305.59   | 59475305.59       |
| 17 | Number of shipments                                | 5        |   | 13           | 14            |          | 117227.823986 | 6             |          | 114088.76948  | 11            |          | 114614.34158 | 11            |          | 111879.74601  | 11            |          | 115333.89327  | 63244476.33   | 50744476.33       |
| 18 | Total cost (\$)                                    | 12500000 |   | 14           | 8             |          | 111148.28657  | 7             |          | 114312.584    | 9             |          | 113727.9258  | 10            |          | 117045.52181  | 14            |          | 119027.413294 | 65261731.47   | 52761731.47       |
| 19 |  |          |   | 15           | 8             |          | 117446.90021  | 8             |          | 116236.03249  | 11            |          | 115191.91477 | 7             |          | 114782.48271  | 15            |          | 113013.88497  | 76671215.15   | 6471215.15        |
| 20 |  |          |   | 16           | 8             |          | 110338.32021  | 12            |          | 111214.9034   | 7             |          | 111777.76811 | 8             |          | 113503.29499  | 10            |          | 0.8825.19078  | 48834286.71   | 36334286.71       |
| 21 |  |          |   | 17           | 11            |          | 0.13302.01489 | 15            |          | 1.8504.782504 | 6             |          | 113465.77993 | 14            |          | 0.16964.97438 | 13            |          | 114205.40161  | 36175955.14   | 73675955.14       |

Option 2 simulation sample:

|    | A  | B        | C | D            | E        | F | G            | H | I | J            | K | L | M           | N | O | P            | Q | R | S             | T | U | V           | W | X | Y            | Z |  |               |
|----|--|----------|---|--------------|----------|---|--------------|---|---|--------------|---|---|-------------|---|---|--------------|---|---|---------------|---|---|-------------|---|---|--------------|---|--|---------------|
| 1  | Given  |          |   | Simulation   |          |   |              |   |   |              |   |   |             |   |   |              |   |   |               |   |   |             |   |   |              |   |  |               |
| 2  | Produce total (kg)                                 | 5000     |   | Shipment num | 1        |   |              |   |   |              |   |   |             |   |   |              |   |   |               |   |   |             |   |   |              |   |  |               |
| 3  | Production cost (\$/kg)                            | 2000     |   | Simulation n | Success? | 2 |              |   |   |              |   |   |             |   |   |              |   |   |               |   |   |             |   |   |              |   |  |               |
| 4  | Cocaine per shipment (kg)                          | 500      |   | Simulation n | Success? | 3 |              |   |   |              |   |   |             |   |   |              |   |   |               |   |   |             |   |   |              |   |  |               |
| 5  | Shipping cost (\$/kg)                              | 650      |   | 1            | 1        |   | 10764.34487  | 1 |   | 8132.698229  | 1 |   | 15487.80056 | 1 |   | 15928.68304  | 1 |   | 16313.05038   | 1 |   | 14816.65206 | 1 |   | 11893.22243  | 1 |  | 14887.11915   |
| 6  | Uniform chance caught (%), lower                   | 5        |   | 2            | 1        |   | 115584.36287 | 1 |   | 117645.20799 | 1 |   | 10345.66739 | 1 |   | 20354.27089  | 1 |   | 16376.99839   | 1 |   | 13524.09456 | 1 |   | 16711.93607  | 1 |  | 15435.1341    |
| 7  | Uniform chance caught (%), upper                   | 15       |   | 3            | 1        |   | 10246.62344  | 1 |   | 131174.30712 | 1 |   | 11243.43907 | 1 |   | 12552.07986  | 1 |   | 19918.80295   | 1 |   | 12251.61718 | 1 |   | 14782.52309  | 1 |  | 13703.41607   |
| 8  | Sales price (\$)                                   | 14000    |   | 4            | 1        |   | 15140.37602  | 1 |   | 13326.25044  | 1 |   | 11895.68679 | 1 |   | 17356.149583 | 1 |   | 13715.69571   | 1 |   | 14074.03463 | 1 |   | 15979.50829  | 1 |  | 0.14699.22292 |
| 9  | Sales price stddev (\$)                            | 3000     |   | 5            | 1        |   | 10673.14717  | 1 |   | 1027.493692  | 1 |   | 13133.49419 | 1 |   | 16202.42042  | 1 |   | 0.13118.49115 | 1 |   | 11166.9424  | 1 |   | 15301.23077  | 1 |  | 14370.33303   |
| 10 | Assumption   |          |   | 6            | 1        |   | 13418.13056  | 1 |   | 12106.47415  | 1 |   | 11934.53699 | 1 |   | 16318.84249  | 1 |   | 11821.77952   | 1 |   | 13144.80164 | 1 |   | 11110.9694   | 1 |  | 115307.52745  |
| 11 | Pay for transport whether it's failed or succeeded |          |   | 7            | 1        |   | 11194.79843  | 1 |   | 116935.19905 | 1 |   | 13242.06001 | 1 |   | 10235.96813  | 1 |   | 10383.83154   | 1 |   | 14197.85059 | 1 |   | 13300.17069  | 1 |  | 15236.14707   |
| 12 | Calculated   |          |   | 8            | 1        |   | 11585.48189  | 1 |   | 1736.671096  | 1 |   | 16293.79149 | 1 |   | 17968.30964  | 1 |   | 9469.303321   | 1 |   | 11095.61943 | 1 |   | 16837.53822  | 1 |  | 12295.94208   |
| 13 | Production cost (\$)                               | 10000000 |   | 9            | 1        |   | 11777.8005   | 0 |   | 19401.11539  | 1 |   | 11076.60264 | 1 |   | 1480.303321  | 1 |   | 9298.77396    | 1 |   | 11096.61943 | 1 |   | 16837.53822  | 1 |  | 12295.94208   |
| 14 | Shipping cost (\$)                                 | 2500000  |   | 10           | 1        |   | 13769.3698   | 0 |   | 14321.45033  | 1 |   | 10719.32401 | 1 |   | 13538.80237  | 1 |   | 11481.32901   | 1 |   | 13707.93075 | 1 |   | 13164.97652  | 1 |  | 10480.66645   |
| 15 | Number of shipments                                | 10       |   | 11           | 1        |   | 14139.78125  | 1 |   | 11491.62088  | 1 |   | 14057.74712 | 1 |   | 16323.10099  | 1 |   | 16396.42303   | 1 |   | 14236.8188  | 1 |   | 10966.96664  | 1 |  | 15902.58071   |
| 16 | Total cost (\$)                                    | 13250000 |   | 12           | 1        |   | 10352.71812  | 1 |   | 1945.678377  | 1 |   | 1925.08769  | 1 |   | 1433.4368    | 1 |   | 13125.68614   | 1 |   | 19328.21094 | 1 |   | 10243.87952  | 1 |  | 1441.105408   |
| 17 | Number of shipments                                | 10       |   | 13           | 1        |   | 14475.69453  | 1 |   | 11269.23301  | 1 |   | 12290.58766 | 1 |   | 15494.25075  | 1 |   | 17106.22443   | 1 |   | 20467.02382 | 1 |   | 11831.80141  | 1 |  | 12876.47376   |
| 18 | Total cost (\$)                                    | 13250000 |   | 14           | 1        |   | 10913.64157  | 1 |   | 14236.69845  | 1 |   | 11957.09927 | 1 |   | 12400.07955  | 1 |   | 12498.80329   | 1 |   | 12902.47909 | 1 |   | 16297.07761  | 1 |  | 11786.58639   |
| 19 |  |          |   | 15           | 1        |   | 11685.8428   | 1 |   | 11468.94817  | 1 |   | 11925.04627 | 1 |   | 17252.94237  | 1 |   | 10025.49552   | 1 |   | 14315.78422 | 1 |   | 14270.10777  | 1 |  | 13356.86483   |
| 20 |  |          |   | 16           | 1        |   | 12096.12172  | 0 |   | 12371.14281  | 1 |   | 10281.71323 | 1 |   | 13202.80962  | 1 |   | 19849.50153   | 1 |   | 12458.32155 | 1 |   | 18988.556082 | 0 |  | 12681.89243   |
| 21 |  |          |   | 17           | 0        |   | 9651.0977    | 1 |   | 12485.72443  | 1 |   | 11063.73474 | 1 |   | 16618.17967  | 1 |   | 19600.52135   | 1 |   | 12400.96006 | 1 |   | 17098.12058  | 1 |  | 14177.21909   |
| 22 |  |          |   | 18           | 0        |   | 16344.74729  | 1 |   | 16892.42388  | 1 |   | 11155.94681 | 1 |   | 11464.34072  | 1 |   | 19544.53202   | 1 |   | 11677.25073 | 1 |   | 8948.26357   | 1 |  | 14522.72281   |
| 23 |  |          |   | 19           | 0        |   | 18571.97614  | 1 |   | 15830.4338   | 1 |   | 10001.62051 | 1 |   | 18232.00766  | 1 |   | 11514.72485   | 1 |   | 12490.7429  | 1 |   | 10734.85037  | 1 |  | 12445.3253    |
| 24 |  |          |   | 20           | 0        |   | 8404.358437  | 1 |   | 14294.76459  | 1 |   | 11287.84725 | 1 |   | 14811.78931  | 1 |   | 11748.13996   | 1 |   | 12193.46062 | 1 |   | 12234.48116  | 1 |  | 13286.61637   |
| 25 |  |          |   | 21           | 1        |   | 14832.9437   | 1 |   | 11724.52148  | 1 |   | 19280.99578 | 1 |   | 11175.22123  | 1 |   | 15443.87953   | 1 |   | 19038.4912  | 1 |   | 18728.4756   | 1 |  | 15360.28858   |

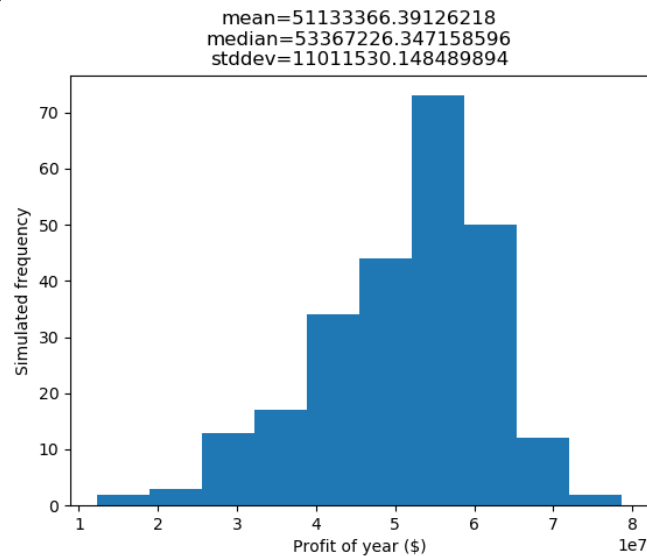
Sadly, the office software that I use can't plot frequency histogram. Therefore, I've ran a simulation (data from that simulation Appendix A), copied out total profit, and put it into a python script that I wrote. A benefit of using python is that we can trust that popular python libraries are robust and there's good internal logic for deciding bin size, number of bins, etc., so we can just plot our numbers with default settings. Also, we can make it calculate other values such as mean and standard deviation automatically for us:

```

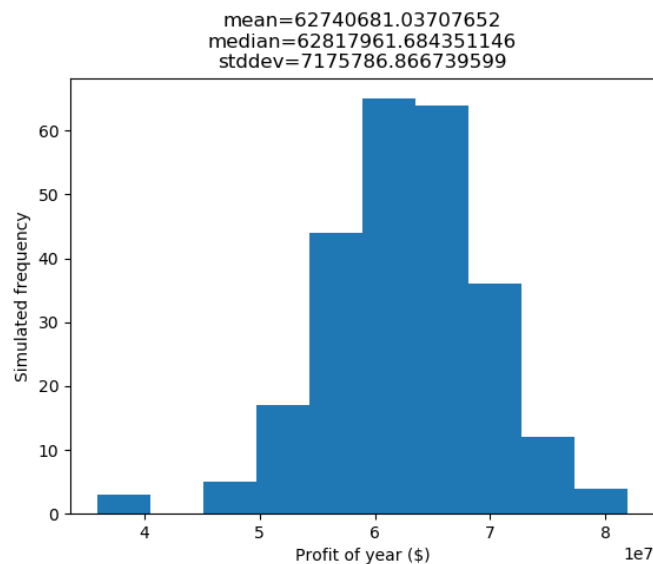
1 import matplotlib.pyplot as plt
2 import numpy as np
3 import os
4
5 cwd = os.getcwd()
6 print(cwd)
7
8
9 option1 = [53859542.9221536, 48068055.5568153, 39441099.9702173, 38197386.1471177, 59963575.1
10 plt.hist(option1)
11 plt.ylabel('Simulated frequency')
12 plt.xlabel('Profit of year ($)')
13 plt.title("Q1, option 1\nMean="+str(np.mean(option1))+", stddev="+str(np.std(option1)))
14 plt.savefig('q1-option1.png')
15 #plt.show()
16
17 plt.cla()
18 plt.clf()
19 plt.close()
20
21 option2 = [63720232.2927411, 56106540.2556289, 51092698.7740412, 61731076.4755671, 67029861.1
22 plt.hist(option2)
23 plt.ylabel('Simulated frequency')
24 plt.xlabel('Profit of year ($)')
25 plt.title("Q1, option 2\nMean="+str(np.mean(option2))+", stddev="+str(np.std(option2)))
26 plt.savefig('q1-option2.png')

```

Option 1 frequency histogram:



Option2 frequency histogram:



We can see that in 250 simulations, none of them lost money, so both options are at least viable. Comparing option 1 to option 2, option 1 has comparatively lower mean profit (by approx. \$1mil) and higher standard deviation (by approx \$4mil), which means that it's the riskier option (smaller mean profit, but more potential to earn more, but also more potential to earn less).

Truck shipment is recommended, since it'll make more money on an average year, and drug operations are often already very risky, so an obvious chance to lower risk is appreciated.

2.

There are four possible outcomes. We can put them in a spreadsheet to calculate outcomes:

|   | A        | B      | C           | D           | E           | F               | G       | H           |
|---|----------|--------|-------------|-------------|-------------|-----------------|---------|-------------|
| 1 | Scenario | Demand | Probability | Confiscated | Probability | Net probability | EAUB    | Variance    |
| 2 |          | 1 High | 40.00%      | Yes         | 20.00%      | 8.00%           | 600000  | 28800000000 |
| 3 |          | 2 Low  | 60.00%      | Yes         | 20.00%      | 12.00%          | 400000  | 19200000000 |
| 4 |          | 3 High | 40.00%      | No          | 80.00%      | 32.00%          | 3000000 | 2.88E+12    |
| 5 |          | 4 Low  | 60.00%      | No          | 80.00%      | 48.00%          | 2000000 | 1.92E+12    |
| 6 |          |        |             |             |             |                 |         |             |
| 7 |          |        |             |             |             | Expected EAUB   | 2016000 |             |
| 8 |          |        |             |             |             |                 |         |             |
| 9 |          |        |             |             |             |                 | STDDEV  | 885293.1718 |

Calculating IRR:

PV of benefits – PV of costs = 0

\$2016000(P/A, i, 5) - \$2000000 = 0

$[(1+i)^5 - 1] / [i(1+i)^5] - 2000000/2016000 = [(1+i)^5 - 1] / [i(1+i)^5] - 125/126 = 0$

After interpolating in some sheet software:

|       |              |
|-------|--------------|
| 0.95  | 0.023234189  |
| 0.955 | 0.018390987  |
| 0.96  | 0.013591078  |
| 0.965 | 0.008833914  |
| 0.97  | 0.004118957  |
| 0.975 | -0.000554321 |
| 0.98  | -0.005186442 |
| 0.985 | -0.009777919 |
| 0.99  | -0.014329257 |
| 0.995 | -0.018840951 |
| 1     | -0.023313492 |

IRR = i = 0.9725 = 97.25%

This rate of return is very high.

Per rule of thumb ("If the expected present worth is at least double the standard deviation of the present worth, then the project is relatively safe."), we can see that  $2 \times \text{STDDEV} = 1770586.344 < 2016000$ , therefore our expected value is at least double the standard deviation and our risk passes the rule of thumb test.

Therefore, we can see that the rate of return is very high, and the risk is acceptable, so moving forward with this investment is recommended.

Bonus:

Medellín Cartel

Appendix A in following pages:

# Q1-option1

| Given   |          | Simulation    |                |          |
|---|----------|---------------|----------------|----------|
| Produce total (kg)                                  | 5000     | Shipment num  | 1              |          |
| Production cost (\$/kg)                             | 2000     | Simulation nu | Failure probab | Success? |
| Cocaine per shipment (kg)                           | 1000     | 1             | 11             | 1        |
| Shipping cost (\$/kg)                               | 500      | 2             | 8              | 1        |
| Uniform chance caught (%), lower                    | 5        | 3             | 10             | 1        |
| Uniform chance caught (5), upper                    | 15       | 4             | 8              | 1        |
| Sales price (\$)                                    | 14000    | 5             | 9              | 1        |
| Sales price stddev (\$)                             | 3000     | 6             | 6              | 1        |
|   |          | 7             | 13             | 1        |
| Assumption  |          | 8             | 8              | 1        |
| Pay for transport whether it's failed or succeeded. |          | 9             | 7              | 1        |
|   |          | 10            | 5              | 1        |
| Calculated  |          | 11            | 5              | 1        |
| Production cost (\$)                                | 10000000 | 12            | 12             | 1        |
| Shipping cost (\$)                                  | 2500000  | 13            | 14             | 1        |
| Number of shipments                                 | 5        | 14            | 10             | 0        |
| Total cost (\$)                                     | 12500000 | 15            | 6              | 1        |
|   |          | 16            | 13             | 0        |
|   |          | 17            | 10             | 1        |
|   |          | 18            | 15             | 1        |
|   |          | 19            | 7              | 1        |
|   |          | 20            | 8              | 1        |
|   |          | 21            | 15             | 1        |
|   |          | 22            | 14             | 1        |
|   |          | 23            | 8              | 1        |
|   |          | 24            | 9              | 1        |
|   |          | 25            | 13             | 1        |
|   |          | 26            | 6              | 1        |
|   |          | 27            | 11             | 1        |
|   |          | 28            | 12             | 1        |
|   |          | 29            | 6              | 1        |
|   |          | 30            | 10             | 1        |
|   |          | 31            | 14             | 1        |
|   |          | 32            | 15             | 0        |
|   |          | 33            | 5              | 1        |
|   |          | 34            | 5              | 1        |
|   |          | 35            | 14             | 0        |
|   |          | 36            | 13             | 1        |
|   |          | 37            | 15             | 1        |
|   |          | 38            | 5              | 1        |
|   |          | 39            | 13             | 0        |
|   |          | 40            | 13             | 1        |
|   |          | 41            | 15             | 1        |
|   |          | 42            | 9              | 1        |
|   |          | 43            | 8              | 1        |
|   |          | 44            | 5              | 1        |
|   |          | 45            | 5              | 1        |
|   |          | 46            | 10             | 1        |

Q1-option1

|    |    |   |
|----|----|---|
| 47 | 12 | 1 |
| 48 | 15 | 1 |
| 49 | 15 | 1 |
| 50 | 7  | 1 |
| 51 | 7  | 1 |
| 52 | 12 | 1 |
| 53 | 12 | 1 |
| 54 | 8  | 1 |
| 55 | 7  | 1 |
| 56 | 5  | 1 |
| 57 | 15 | 0 |
| 58 | 14 | 1 |
| 59 | 7  | 1 |
| 60 | 12 | 1 |
| 61 | 7  | 1 |
| 62 | 10 | 1 |
| 63 | 10 | 1 |
| 64 | 13 | 1 |
| 65 | 12 | 0 |
| 66 | 7  | 1 |
| 67 | 15 | 0 |
| 68 | 11 | 1 |
| 69 | 10 | 1 |
| 70 | 14 | 1 |
| 71 | 14 | 1 |
| 72 | 15 | 0 |
| 73 | 7  | 1 |
| 74 | 6  | 1 |
| 75 | 14 | 1 |
| 76 | 11 | 1 |
| 77 | 12 | 1 |
| 78 | 8  | 1 |
| 79 | 6  | 1 |
| 80 | 10 | 0 |
| 81 | 11 | 1 |
| 82 | 11 | 1 |
| 83 | 10 | 0 |
| 84 | 13 | 0 |
| 85 | 13 | 0 |
| 86 | 12 | 1 |
| 87 | 13 | 1 |
| 88 | 11 | 1 |
| 89 | 14 | 0 |
| 90 | 10 | 1 |
| 91 | 12 | 1 |
| 92 | 6  | 1 |
| 93 | 10 | 1 |
| 94 | 10 | 1 |
| 95 | 9  | 1 |

Q1-option1

|     |    |   |
|-----|----|---|
| 96  | 15 | 1 |
| 97  | 12 | 1 |
| 98  | 6  | 1 |
| 99  | 12 | 1 |
| 100 | 13 | 1 |
| 101 | 6  | 1 |
| 102 | 11 | 1 |
| 103 | 12 | 1 |
| 104 | 12 | 1 |
| 105 | 12 | 0 |
| 106 | 5  | 1 |
| 107 | 7  | 1 |
| 108 | 10 | 1 |
| 109 | 7  | 1 |
| 110 | 14 | 1 |
| 111 | 8  | 1 |
| 112 | 12 | 1 |
| 113 | 14 | 1 |
| 114 | 14 | 1 |
| 115 | 11 | 1 |
| 116 | 5  | 1 |
| 117 | 14 | 0 |
| 118 | 11 | 0 |
| 119 | 9  | 1 |
| 120 | 13 | 1 |
| 121 | 8  | 1 |
| 122 | 13 | 1 |
| 123 | 14 | 1 |
| 124 | 15 | 1 |
| 125 | 7  | 1 |
| 126 | 8  | 1 |
| 127 | 13 | 1 |
| 128 | 14 | 0 |
| 129 | 8  | 1 |
| 130 | 12 | 0 |
| 131 | 11 | 1 |
| 132 | 9  | 1 |
| 133 | 13 | 1 |
| 134 | 9  | 1 |
| 135 | 9  | 1 |
| 136 | 14 | 1 |
| 137 | 10 | 1 |
| 138 | 7  | 1 |
| 139 | 14 | 0 |
| 140 | 6  | 1 |
| 141 | 5  | 1 |
| 142 | 12 | 1 |
| 143 | 15 | 1 |
| 144 | 14 | 1 |

Q1-option1

|     |    |   |
|-----|----|---|
| 145 | 15 | 1 |
| 146 | 10 | 1 |
| 147 | 13 | 0 |
| 148 | 14 | 1 |
| 149 | 11 | 1 |
| 150 | 13 | 1 |
| 151 | 8  | 0 |
| 152 | 10 | 1 |
| 153 | 11 | 1 |
| 154 | 14 | 1 |
| 155 | 15 | 1 |
| 156 | 12 | 1 |
| 157 | 7  | 0 |
| 158 | 12 | 1 |
| 159 | 14 | 1 |
| 160 | 13 | 0 |
| 161 | 13 | 1 |
| 162 | 11 | 1 |
| 163 | 6  | 1 |
| 164 | 11 | 1 |
| 165 | 10 | 1 |
| 166 | 12 | 1 |
| 167 | 15 | 1 |
| 168 | 5  | 1 |
| 169 | 5  | 1 |
| 170 | 9  | 1 |
| 171 | 5  | 1 |
| 172 | 9  | 1 |
| 173 | 10 | 1 |
| 174 | 9  | 1 |
| 175 | 5  | 1 |
| 176 | 9  | 1 |
| 177 | 13 | 0 |
| 178 | 11 | 1 |
| 179 | 14 | 0 |
| 180 | 12 | 1 |
| 181 | 15 | 1 |
| 182 | 7  | 1 |
| 183 | 14 | 1 |
| 184 | 5  | 1 |
| 185 | 11 | 1 |
| 186 | 10 | 1 |
| 187 | 9  | 1 |
| 188 | 15 | 1 |
| 189 | 8  | 1 |
| 190 | 5  | 1 |
| 191 | 6  | 0 |
| 192 | 15 | 1 |
| 193 | 12 | 0 |

Q1-option1

|     |    |   |
|-----|----|---|
| 194 | 15 | 1 |
| 195 | 13 | 0 |
| 196 | 7  | 1 |
| 197 | 8  | 0 |
| 198 | 8  | 0 |
| 199 | 11 | 1 |
| 200 | 10 | 0 |
| 201 | 14 | 1 |
| 202 | 5  | 0 |
| 203 | 12 | 1 |
| 204 | 6  | 1 |
| 205 | 11 | 1 |
| 206 | 15 | 1 |
| 207 | 12 | 1 |
| 208 | 15 | 1 |
| 209 | 5  | 1 |
| 210 | 5  | 1 |
| 211 | 14 | 1 |
| 212 | 14 | 1 |
| 213 | 5  | 0 |
| 214 | 8  | 0 |
| 215 | 15 | 1 |
| 216 | 13 | 1 |
| 217 | 7  | 1 |
| 218 | 10 | 1 |
| 219 | 12 | 1 |
| 220 | 14 | 1 |
| 221 | 11 | 1 |
| 222 | 9  | 1 |
| 223 | 6  | 1 |
| 224 | 6  | 1 |
| 225 | 12 | 1 |
| 226 | 7  | 1 |
| 227 | 9  | 1 |
| 228 | 14 | 1 |
| 229 | 9  | 1 |
| 230 | 6  | 1 |
| 231 | 11 | 1 |
| 232 | 13 | 1 |
| 233 | 6  | 1 |
| 234 | 13 | 1 |
| 235 | 14 | 1 |
| 236 | 11 | 1 |
| 237 | 11 | 1 |
| 238 | 5  | 1 |
| 239 | 14 | 1 |
| 240 | 5  | 1 |
| 241 | 15 | 1 |
| 242 | 5  | 1 |



Q1-option1

|     |    |   |
|-----|----|---|
| 243 | 11 | 1 |
| 244 | 11 | 1 |
| 245 | 5  | 1 |
| 246 | 7  | 1 |
| 247 | 11 | 1 |
| 248 | 14 | 1 |
| 249 | 14 | 1 |
| 250 | 7  | 1 |

Q1-option1

| 2           |                |          | 3           |                |          |
|-------------|----------------|----------|-------------|----------------|----------|
| Sale price  | Failure probat | Success? | Sale price  | Failure probat | Success? |
| 15421.6086  | 6              | 1        | 13209.4775  | 10             | 1        |
| 16952.83032 | 13             | 1        | 21738.68354 | 10             | 0        |
| 16010.99307 | 8              | 1        | 11911.18835 | 14             | 0        |
| 14261.83856 | 15             | 1        | 12221.8722  | 11             | 0        |
| 11562.83879 | 10             | 1        | 17376.63235 | 11             | 1        |
| 11732.87511 | 9              | 1        | 10708.25291 | 10             | 1        |
| 16673.54233 | 15             | 1        | 17894.29044 | 14             | 1        |
| 15411.24281 | 10             | 1        | 12196.48912 | 13             | 0        |
| 17902.21366 | 9              | 1        | 10537.70797 | 9              | 1        |
| 15603.72417 | 14             | 1        | 11691.69995 | 12             | 1        |
| 18283.77891 | 9              | 1        | 10331.09803 | 8              | 1        |
| 12934.22987 | 6              | 1        | 14897.80899 | 13             | 1        |
| 17282.4845  | 14             | 0        | 11954.09515 | 9              | 0        |
| 14082.7404  | 7              | 1        | 20080.70832 | 9              | 1        |
| 20167.36388 | 12             | 0        | 12035.91016 | 9              | 1        |
| 14003.53233 | 5              | 1        | 10425.04084 | 12             | 1        |
| 10455.13782 | 9              | 1        | 12690.89127 | 10             | 1        |
| 13996.51243 | 13             | 1        | 13957.5948  | 9              | 1        |
| 19754.60266 | 9              | 1        | 15436.19257 | 11             | 1        |
| 8342.262008 | 13             | 1        | 14964.79013 | 15             | 1        |
| 16903.37057 | 13             | 1        | 13467.44349 | 13             | 1        |
| 16222.54837 | 11             | 1        | 12835.09287 | 5              | 1        |
| 15260.13999 | 10             | 1        | 11190.83503 | 14             | 1        |
| 11214.67309 | 12             | 1        | 19282.68482 | 5              | 1        |
| 18136.13579 | 12             | 1        | 13161.19283 | 14             | 1        |
| 15031.40158 | 5              | 1        | 13602.07659 | 8              | 0        |
| 9861.816428 | 13             | 0        | 9910.049521 | 14             | 1        |
| 12414.43884 | 6              | 1        | 10688.92873 | 5              | 1        |
| 15058.29431 | 14             | 1        | 11061.77969 | 15             | 1        |
| 14230.98236 | 10             | 1        | 15027.62441 | 14             | 1        |
| 14342.28689 | 14             | 1        | 14625.11352 | 10             | 0        |
| 12081.92093 | 12             | 1        | 13819.83948 | 14             | 1        |
| 10713.5896  | 15             | 1        | 11310.75678 | 13             | 1        |
| 14707.71257 | 7              | 1        | 12815.32376 | 10             | 1        |
| 20587.42312 | 11             | 1        | 17205.02383 | 8              | 1        |
| 12979.48317 | 12             | 1        | 12708.07776 | 11             | 0        |
| 14642.3044  | 7              | 1        | 8792.728596 | 13             | 1        |
| 11209.95299 | 6              | 1        | 15044.11136 | 6              | 1        |
| 11396.50755 | 15             | 1        | 17589.47336 | 9              | 1        |
| 19711.76487 | 15             | 1        | 6713.049621 | 6              | 1        |
| 14944.36669 | 7              | 1        | 12403.79135 | 11             | 1        |
| 19081.83442 | 8              | 1        | 14424.79485 | 14             | 1        |
| 9235.752028 | 10             | 1        | 12768.57382 | 7              | 1        |
| 17398.95954 | 7              | 1        | 9589.819999 | 15             | 1        |
| 22509.82453 | 7              | 1        | 11873.20681 | 14             | 1        |
| 16117.00403 | 5              | 1        | 9526.588705 | 13             | 1        |

Q1-option1

|             |    |   |             |    |   |             |
|-------------|----|---|-------------|----|---|-------------|
| 14889.37417 | 11 | 0 | 16899.3524  | 9  | 1 | 13908.12859 |
| 12042.20817 | 11 | 0 | 14297.12561 | 10 | 1 | 10940.51484 |
| 12615.91306 | 10 | 1 | 15891.62274 | 7  | 1 | 14894.22844 |
| 14145.36928 | 15 | 1 | 15654.12967 | 11 | 1 | 10778.49442 |
| 10736.41977 | 5  | 1 | 9209.351935 | 12 | 1 | 15129.1474  |
| 16045.05221 | 13 | 1 | 11570.21989 | 7  | 1 | 11612.39394 |
| 10829.90908 | 11 | 1 | 16436.45142 | 5  | 1 | 18914.97549 |
| 8204.594706 | 10 | 1 | 12775.04606 | 7  | 1 | 14179.18576 |
| 16023.61151 | 5  | 1 | 12280.69707 | 7  | 1 | 16797.47696 |
| 12867.83114 | 10 | 1 | 13263.80779 | 13 | 1 | 8717.235298 |
| 11120.86316 | 5  | 1 | 17345.33163 | 5  | 1 | 17557.0772  |
| 12860.56664 | 12 | 1 | 13369.45854 | 9  | 1 | 12609.12222 |
| 16185.93671 | 6  | 1 | 10765.54885 | 13 | 1 | 8157.609095 |
| 12168.87994 | 14 | 1 | 15964.20305 | 12 | 1 | 20407.87498 |
| 9281.312874 | 12 | 1 | 8855.677972 | 10 | 1 | 12090.00872 |
| 11066.90327 | 10 | 1 | 12845.10305 | 14 | 1 | 15711.26957 |
| 21782.31685 | 5  | 1 | 15881.08857 | 11 | 1 | 13335.18356 |
| 14367.9738  | 13 | 1 | 16243.43602 | 9  | 1 | 10989.42245 |
| 14539.57023 | 6  | 1 | 12268.07931 | 5  | 1 | 16491.48938 |
| 15294.92894 | 13 | 1 | 15259.97353 | 9  | 1 | 11689.74226 |
| 17036.36404 | 12 | 0 | 9073.739431 | 5  | 1 | 14479.54835 |
| 11780.23775 | 10 | 1 | 11898.93455 | 10 | 1 | 16504.19709 |
| 14917.72581 | 13 | 1 | 11958.43669 | 7  | 1 | 12358.0645  |
| 15714.29881 | 11 | 1 | 14872.41568 | 15 | 1 | 14427.82234 |
| 17905.21639 | 7  | 1 | 10903.85281 | 8  | 1 | 14903.73355 |
| 13417.12598 | 11 | 1 | 13471.43194 | 13 | 1 | 13524.38525 |
| 13806.9971  | 7  | 1 | 15308.35819 | 13 | 1 | 22123.12424 |
| 15186.33126 | 15 | 1 | 17986.48904 | 5  | 1 | 11117.78607 |
| 12983.71679 | 10 | 1 | 15315.01405 | 9  | 1 | 10138.47889 |
| 16078.11366 | 8  | 1 | 14226.9372  | 8  | 1 | 15467.41068 |
| 16288.6819  | 10 | 1 | 9168.38751  | 10 | 1 | 11697.13404 |
| 15689.64877 | 15 | 1 | 15100.78249 | 9  | 1 | 13852.22042 |
| 9716.18979  | 7  | 1 | 18192.47981 | 10 | 1 | 9884.285173 |
| 13112.34561 | 10 | 1 | 13291.88417 | 12 | 0 | 16077.36825 |
| 11788.50426 | 11 | 0 | 10889.24157 | 10 | 1 | 12422.57244 |
| 14448.42823 | 5  | 1 | 11876.12286 | 6  | 1 | 14183.76891 |
| 16789.6716  | 9  | 1 | 17004.51441 | 7  | 1 | 14261.5068  |
| 11080.35371 | 10 | 1 | 5694.936462 | 10 | 1 | 15381.08462 |
| 15475.63442 | 7  | 0 | 12552.10087 | 11 | 1 | 11847.75107 |
| 11295.62768 | 8  | 1 | 15312.67152 | 10 | 1 | 11523.77906 |
| 8275.658105 | 5  | 1 | 13161.13136 | 10 | 1 | 9540.070355 |
| 14996.80299 | 12 | 0 | 21159.95488 | 12 | 1 | 10269.92059 |
| 17130.34277 | 14 | 0 | 19132.24573 | 8  | 1 | 13236.91303 |
| 9990.93562  | 13 | 0 | 15378.7117  | 12 | 1 | 19372.41944 |
| 12489.4219  | 9  | 0 | 14385.95929 | 5  | 1 | 10600.74176 |
| 11328.18453 | 14 | 1 | 13386.72155 | 12 | 1 | 12825.1481  |
| 16895.67739 | 5  | 1 | 16153.68737 | 15 | 1 | 19870.60462 |
| 8777.0395   | 5  | 1 | 18499.66429 | 12 | 1 | 14472.06917 |
| 15826.14647 | 10 | 0 | 18864.93787 | 14 | 1 | 10858.68556 |

Q1-option1

|             |    |               |    |               |
|-------------|----|---------------|----|---------------|
| 15461.4064  | 8  | 1 12626.68479 | 13 | 1 13562.43603 |
| 9987.429083 | 5  | 1 16030.40486 | 12 | 1 11709.27934 |
| 17949.63939 | 15 | 1 13035.43869 | 5  | 1 10872.94192 |
| 10969.03287 | 10 | 1 14768.64426 | 5  | 1 7239.044226 |
| 15743.15123 | 15 | 1 15075.04299 | 14 | 1 12619.90007 |
| 11635.69053 | 15 | 1 14875.83944 | 13 | 1 13122.55072 |
| 16976.72506 | 14 | 1 8384.529138 | 11 | 1 24654.36211 |
| 14743.96348 | 13 | 1 11507.14726 | 12 | 1 17668.97973 |
| 11934.28057 | 12 | 1 12386.38094 | 6  | 1 21056.45184 |
| 8620.999259 | 12 | 1 14518.8365  | 12 | 1 12496.70499 |
| 13599.0952  | 15 | 1 11491.25664 | 10 | 1 15156.409   |
| 10010.01272 | 10 | 1 12247.18801 | 7  | 1 19464.50815 |
| 11439.95972 | 12 | 1 15114.12607 | 15 | 1 11099.84158 |
| 13730.62809 | 13 | 1 13443.04193 | 15 | 1 12519.15324 |
| 15026.09008 | 8  | 1 15906.94647 | 12 | 1 13920.89925 |
| 9777.255367 | 9  | 1 20204.13558 | 8  | 1 16819.93539 |
| 16860.76846 | 13 | 1 11319.21739 | 12 | 1 9551.541119 |
| 15223.52505 | 8  | 1 14383.01407 | 5  | 1 10534.83318 |
| 10115.20167 | 6  | 1 16387.97489 | 8  | 1 16422.44582 |
| 11560.50514 | 11 | 1 14572.20094 | 7  | 1 19371.1008  |
| 13137.94177 | 11 | 1 20359.49201 | 9  | 0 13846.92068 |
| 14325.22609 | 7  | 1 14707.0828  | 6  | 1 17009.17362 |
| 11837.9492  | 8  | 1 13784.87107 | 6  | 1 13563.82385 |
| 16585.88612 | 11 | 0 19465.6673  | 10 | 1 16581.08511 |
| 12005.38954 | 9  | 1 14416.23923 | 13 | 1 13163.62956 |
| 14702.95538 | 9  | 1 8354.293153 | 10 | 1 14960.74659 |
| 9759.067603 | 8  | 1 18883.33853 | 10 | 1 14881.45566 |
| 9540.968323 | 9  | 1 17839.66391 | 13 | 1 14530.52491 |
| 13749.34998 | 9  | 1 11100.10822 | 5  | 1 13782.29702 |
| 11972.27444 | 12 | 1 18555.07045 | 15 | 1 12821.81727 |
| 10317.26069 | 8  | 0 13348.52607 | 13 | 0 15233.42284 |
| 17106.70537 | 10 | 1 11836.9641  | 13 | 0 16469.76027 |
| 13125.5196  | 15 | 1 16481.93301 | 7  | 0 16697.45628 |
| 17241.8425  | 10 | 1 13080.29493 | 14 | 1 16750.11849 |
| 18031.98462 | 8  | 1 13667.12999 | 15 | 1 15359.61997 |
| 20189.85578 | 7  | 1 16125.9313  | 5  | 1 12837.30092 |
| 20311.66635 | 13 | 1 11422.76231 | 7  | 1 15009.56599 |
| 15266.54437 | 8  | 1 13692.97253 | 10 | 1 11341.64728 |
| 18163.07772 | 9  | 1 14115.51021 | 13 | 0 13605.86411 |
| 14002.57444 | 9  | 1 13656.24689 | 8  | 0 13604.02675 |
| 14276.41342 | 11 | 1 13436.17896 | 7  | 1 13710.24706 |
| 16013.62786 | 6  | 1 14647.6696  | 12 | 1 10704.1729  |
| 12543.84701 | 13 | 1 11492.9606  | 6  | 0 14479.78922 |
| 10294.53863 | 12 | 1 12476.14971 | 6  | 1 14824.0225  |
| 16011.18333 | 10 | 1 12704.72855 | 7  | 0 13602.84347 |
| 14852.201   | 10 | 1 11967.78028 | 15 | 1 12566.8141  |
| 13149.77595 | 15 | 0 15041.8793  | 5  | 1 13550.2962  |
| 9578.538916 | 10 | 1 12801.54549 | 6  | 1 13595.14279 |
| 9361.064971 | 5  | 1 15025.2821  | 7  | 1 13833.95363 |

Q1-option1

|             |    |               |    |               |
|-------------|----|---------------|----|---------------|
| 12823.33503 | 8  | 1 16922.97113 | 7  | 1 13716.26788 |
| 16837.08434 | 11 | 1 12793.7449  | 9  | 1 13276.54309 |
| 11500.92397 | 14 | 1 15739.72405 | 11 | 1 14462.53014 |
| 12369.17733 | 15 | 1 9620.54854  | 10 | 1 12880.3242  |
| 19757.06574 | 7  | 1 10016.09257 | 6  | 1 15183.58738 |
| 13393.20083 | 10 | 1 8787.617795 | 13 | 1 16921.84627 |
| 11544.6785  | 7  | 1 15851.22711 | 5  | 1 9466.195092 |
| 8736.375193 | 11 | 1 14832.32576 | 6  | 1 14685.3486  |
| 11216.12433 | 10 | 1 15431.62002 | 8  | 1 10673.94587 |
| 14524.53953 | 15 | 1 12093.14159 | 7  | 1 11030.69742 |
| 16594.74911 | 8  | 1 12420.13578 | 5  | 1 15868.21909 |
| 8822.012813 | 6  | 1 15024.83255 | 9  | 1 16227.04203 |
| 17002.94331 | 9  | 1 11060.70884 | 15 | 1 11232.18313 |
| 19178.62605 | 11 | 1 15817.1503  | 8  | 1 16621.74266 |
| 18471.5774  | 6  | 1 9668.873232 | 8  | 1 13640.75562 |
| 13307.57302 | 13 | 1 16261.61843 | 5  | 1 9537.596087 |
| 12950.29502 | 5  | 1 11098.57238 | 5  | 1 12398.03173 |
| 7940.805199 | 12 | 1 19794.98234 | 14 | 1 17529.82308 |
| 15324.68804 | 10 | 1 10385.40281 | 7  | 1 17336.3381  |
| 10873.88322 | 7  | 1 16240.89995 | 15 | 1 17567.22314 |
| 18538.53516 | 8  | 1 14501.5533  | 13 | 1 18754.05652 |
| 16238.15672 | 14 | 1 10979.78154 | 13 | 1 13930.91969 |
| 12763.65164 | 11 | 1 19229.90299 | 12 | 1 19092.91742 |
| 16527.81146 | 13 | 1 8581.073187 | 9  | 1 19281.5542  |
| 14025.02474 | 6  | 0 14269.94648 | 14 | 1 8766.631595 |
| 10934.95909 | 9  | 1 11167.73596 | 9  | 1 16099.02237 |
| 9953.242497 | 12 | 1 17591.82388 | 15 | 1 10945.62652 |
| 21299.54492 | 10 | 1 16356.51939 | 6  | 1 12171.05118 |
| 13548.36824 | 12 | 1 13252.4745  | 10 | 1 15265.35401 |
| 22848.34678 | 13 | 1 15232.57471 | 10 | 1 13865.13314 |
| 13071.8629  | 14 | 1 15286.97629 | 7  | 1 14247.2346  |
| 18487.21569 | 11 | 1 18179.85999 | 7  | 1 21742.15637 |
| 18133.63209 | 15 | 1 14499.54068 | 15 | 1 16532.03727 |
| 13565.19753 | 9  | 1 15694.83852 | 14 | 1 17721.94894 |
| 17529.86543 | 15 | 1 12505.81807 | 14 | 0 19565.63755 |
| 13588.61173 | 5  | 1 11189.04413 | 13 | 0 17953.25001 |
| 14883.01115 | 9  | 1 13423.05691 | 8  | 1 16982.66337 |
| 20221.05994 | 15 | 1 10461.78048 | 7  | 1 13694.03099 |
| 13956.56714 | 15 | 1 11254.3399  | 9  | 1 12369.86422 |
| 11404.88687 | 14 | 1 13617.10006 | 7  | 1 21804.60479 |
| 16353.8756  | 12 | 1 12040.14239 | 13 | 1 16279.07636 |
| 15359.87043 | 5  | 1 13399.45224 | 11 | 1 14393.96649 |
| 13630.20551 | 9  | 1 17364.54738 | 13 | 1 10809.87827 |
| 15241.58678 | 15 | 0 12313.69034 | 5  | 0 14458.08412 |
| 8142.613599 | 7  | 1 10977.58107 | 10 | 0 16183.11884 |
| 15124.55934 | 5  | 1 11365.34096 | 8  | 1 14574.61789 |
| 12786.67034 | 14 | 1 12296.504   | 7  | 1 17643.90304 |
| 17416.70411 | 11 | 1 16466.72021 | 8  | 1 15559.12794 |
| 17139.63829 | 5  | 1 14688.05665 | 8  | 1 15534.02684 |

Q1-option1

|             |    |               |    |               |
|-------------|----|---------------|----|---------------|
| 12963.13708 | 6  | 1 14482.80325 | 11 | 1 9760.399679 |
| 11504.6189  | 9  | 1 17078.19659 | 12 | 1 15505.80652 |
| 19808.72761 | 13 | 1 15352.16429 | 13 | 1 10717.85215 |
| 11142.1562  | 8  | 1 7545.203088 | 14 | 1 8680.935532 |
| 15505.17342 | 10 | 1 17897.02372 | 15 | 1 14989.34933 |
| 17579.82787 | 11 | 1 17719.36806 | 12 | 0 6676.985602 |
| 17876.63245 | 5  | 1 12426.71067 | 10 | 1 11238.6855  |
| 16021.92892 | 6  | 1 16706.37201 | 14 | 1 12664.95256 |
| 13154.07307 | 9  | 1 10709.06715 | 14 | 1 18325.67528 |
| 14874.73842 | 7  | 1 13578.94076 | 5  | 1 15574.18837 |
| 11071.72189 | 12 | 1 12653.81556 | 12 | 1 18165.75915 |
| 16419.10283 | 11 | 1 14204.17578 | 12 | 0 17161.1455  |
| 13366.97773 | 6  | 1 20109.96552 | 5  | 1 17739.0684  |
| 13540.50697 | 11 | 1 14127.91556 | 10 | 1 14044.07653 |
| 16296.31145 | 10 | 1 7311.390842 | 11 | 1 14173.27584 |
| 13504.84406 | 9  | 1 11110.27926 | 6  | 1 13441.05606 |
| 12993.38813 | 6  | 1 13769.21719 | 8  | 1 16721.12261 |
| 14652.23958 | 10 | 1 17457.43039 | 5  | 1 12789.51938 |
| 10978.78546 | 9  | 1 16068.10372 | 13 | 1 9860.67752  |
| 16358.3108  | 11 | 1 12621.66857 | 10 | 1 16534.33193 |
| 13951.5718  | 7  | 1 17136.78649 | 9  | 1 10636.80359 |
| 13169.89933 | 8  | 1 12351.21078 | 8  | 1 18900.55128 |
| 15485.20732 | 7  | 1 13729.72864 | 7  | 1 10955.10619 |
| 12955.44437 | 9  | 1 14492.94225 | 13 | 1 11497.37891 |
| 8141.95168  | 8  | 1 14991.54955 | 13 | 1 10391.45885 |
| 13076.93798 | 9  | 1 24029.32697 | 5  | 1 13905.55959 |
| 12528.01167 | 10 | 1 15031.96269 | 7  | 1 13595.14279 |
| 13904.55713 | 8  | 1 14833.96491 | 12 | 1 15363.25651 |
| 7362.995878 | 5  | 1 11987.98618 | 13 | 1 14546.29891 |
| 10414.53284 | 15 | 1 13580.02387 | 15 | 1 15364.23951 |
| 8740.266706 | 10 | 1 13727.83029 | 12 | 1 12692.87825 |
| 14573.08101 | 6  | 0 20267.333   | 5  | 1 10542.73354 |
| 14453.89179 | 14 | 1 14846.96986 | 15 | 1 23590.95736 |
| 10284.63004 | 7  | 1 16326.72605 | 5  | 1 15543.11477 |
| 15774.05054 | 15 | 1 14266.92375 | 6  | 1 16952.33594 |
| 15069.0535  | 5  | 1 16294.32922 | 12 | 1 15978.44877 |
| 13695.25063 | 12 | 0 13216.73592 | 12 | 1 13710.66743 |
| 17749.58022 | 9  | 1 13334.47667 | 9  | 1 7958.69304  |
| 13107.13661 | 15 | 0 18706.77045 | 12 | 0 11220.30163 |
| 17783.91353 | 15 | 1 10725.93073 | 9  | 1 12960.84353 |
| 11913.24857 | 9  | 1 18035.64826 | 10 | 1 14362.67414 |
| 13011.03597 | 11 | 1 12272.0861  | 10 | 1 12242.67991 |
| 17775.98825 | 11 | 1 14456.48846 | 15 | 1 6205.421958 |
| 14422.93355 | 12 | 1 11714.85831 | 12 | 1 17951.62178 |
| 13179.55241 | 6  | 1 16904.98974 | 12 | 1 16309.48018 |
| 10383.01067 | 14 | 1 10520.91245 | 9  | 1 15880.03392 |
| 14025.35585 | 7  | 1 15294.26199 | 13 | 1 19075.90717 |
| 13755.37212 | 7  | 1 16476.16483 | 14 | 1 12652.22992 |
| 15711.57343 | 12 | 1 13946.05639 | 13 | 1 12081.8941  |

Q1-option1

|             |    |               |    |               |
|-------------|----|---------------|----|---------------|
| 16767.98334 | 14 | 1 15607.37733 | 15 | 1 13894.27072 |
| 16938.88438 | 9  | 1 18301.77507 | 9  | 1 8825.267921 |
| 15291.5093  | 9  | 1 15534.13643 | 10 | 1 16358.85958 |
| 11264.47751 | 14 | 1 14041.73802 | 5  | 1 13779.7238  |
| 16083.7395  | 14 | 1 13008.68171 | 7  | 1 19406.9824  |
| 14085.84822 | 14 | 0 13782.42355 | 15 | 0 15745.3381  |
| 11897.54918 | 12 | 1 12723.49828 | 10 | 1 16524.97325 |
| 14517.95093 | 5  | 1 19529.59565 | 14 | 1 14976.37214 |

Q1-option1

| 4              |          | 5           |                |          |             |
|----------------|----------|-------------|----------------|----------|-------------|
| Failure probab | Success? | Sale price  | Failure probab | Success? | Sale price  |
| 11             | 1        | 11849.29996 | 8              | 1        | 13291.44255 |
| 8              | 1        | 10467.00434 | 14             | 1        | 11409.53736 |
| 13             | 1        | 13215.23817 | 15             | 1        | 10803.68038 |
| 15             | 1        | 13067.17742 | 12             | 1        | 11146.49796 |
| 6              | 1        | 16003.02382 | 5              | 1        | 12411.05712 |
| 15             | 1        | 19497.46826 | 15             | 1        | 16121.84831 |
| 12             | 1        | 14573.92532 | 9              | 1        | 15285.44353 |
| 14             | 1        | 15151.87303 | 11             | 1        | 18042.67505 |
| 8              | 1        | 13665.56095 | 9              | 1        | 13031.34103 |
| 9              | 1        | 13665.56095 | 13             | 1        | 9648.209631 |
| 10             | 1        | 18142.06496 | 12             | 1        | 11787.64368 |
| 15             | 1        | 14525.69205 | 5              | 1        | 18808.05672 |
| 14             | 1        | 13811.05369 | 9              | 1        | 12601.08838 |
| 14             | 1        | 8349.979016 | 9              | 1        | 12817.69546 |
| 9              | 0        | 9046.354058 | 8              | 1        | 14167.80498 |
| 6              | 1        | 16043.99152 | 9              | 1        | 15174.59858 |
| 5              | 1        | 17196.46452 | 15             | 1        | 12311.00681 |
| 7              | 1        | 12622.98354 | 10             | 1        | 12668.43647 |
| 8              | 1        | 11455.676   | 8              | 1        | 9993.785379 |
| 5              | 1        | 19251.6245  | 8              | 1        | 15211.5505  |
| 11             | 1        | 15586.03179 | 11             | 1        | 11851.08575 |
| 15             | 1        | 15222.13053 | 5              | 1        | 10380.67714 |
| 12             | 0        | 15796.92246 | 11             | 1        | 11926.38584 |
| 10             | 1        | 13178.06685 | 8              | 1        | 14312.21103 |
| 10             | 1        | 15481.25203 | 13             | 0        | 15049.06309 |
| 15             | 1        | 14315.03569 | 15             | 0        | 8476.035099 |
| 6              | 1        | 17278.64569 | 8              | 1        | 18243.08364 |
| 14             | 1        | 16656.64747 | 11             | 1        | 15445.36622 |
| 15             | 1        | 19436.43604 | 6              | 1        | 10242.2153  |
| 6              | 1        | 12465.10051 | 14             | 1        | 11766.21891 |
| 13             | 1        | 14798.86716 | 6              | 1        | 14399.615   |
| 9              | 1        | 18561.10715 | 12             | 1        | 16659.69005 |
| 11             | 1        | 14632.36722 | 15             | 1        | 11894.22062 |
| 12             | 1        | 16261.03479 | 6              | 1        | 18906.54958 |
| 9              | 1        | 11328.96105 | 13             | 0        | 14662.6761  |
| 8              | 1        | 11642.50157 | 11             | 1        | 17654.94996 |
| 9              | 1        | 18383.84284 | 6              | 1        | 8216.950066 |
| 6              | 1        | 14443.98976 | 14             | 1        | 9568.434031 |
| 14             | 1        | 15011.84181 | 6              | 1        | 14650.49979 |
| 12             | 1        | 14447.91115 | 5              | 1        | 13341.97065 |
| 8              | 1        | 12313.15134 | 9              | 1        | 16802.80591 |
| 9              | 0        | 13652.76872 | 14             | 1        | 13947.61407 |
| 5              | 1        | 12832.11098 | 14             | 1        | 16908.45972 |
| 12             | 0        | 16344.14266 | 14             | 1        | 14533.50921 |
| 7              | 1        | 16155.75535 | 9              | 1        | 17300.26579 |
| 6              | 1        | 11921.2562  | 15             | 1        | 15107.92816 |
|                |          |             |                |          | 61921047.08 |



Q1-option1

|    |   |             |    |   |             |             |
|----|---|-------------|----|---|-------------|-------------|
| 10 | 1 | 14333.60126 | 15 | 1 | 15394.37337 | 58525477.39 |
| 14 | 1 | 16091.74452 | 10 | 1 | 13828.01713 | 52902484.66 |
| 12 | 1 | 11234.05138 | 7  | 1 | 15986.21714 | 70622032.76 |
| 6  | 1 | 12835.43571 | 12 | 1 | 12516.19686 | 65929625.95 |
| 12 | 1 | 14019.96154 | 5  | 1 | 12057.27157 | 61152152.21 |
| 7  | 1 | 15824.60988 | 6  | 1 | 19610.8429  | 74663118.82 |
| 14 | 1 | 11642.50157 | 7  | 1 | 17549.1486  | 75372986.16 |
| 10 | 1 | 16530.22209 | 8  | 1 | 14840.34166 | 66529390.28 |
| 5  | 1 | 8152.90509  | 7  | 1 | 14940.25844 | 68194949.06 |
| 12 | 1 | 12443.60019 | 5  | 1 | 13836.8363  | 61129310.72 |
| 13 | 1 | 19057.85232 | 15 | 1 | 16161.85787 | 70122119.02 |
| 5  | 1 | 17465.2511  | 12 | 1 | 12941.13578 | 69245534.28 |
| 14 | 1 | 12003.71692 | 7  | 1 | 11226.71837 | 58339529.95 |
| 12 | 1 | 12922.69063 | 8  | 1 | 11933.7527  | 73397401.3  |
| 14 | 1 | 15398.62619 | 7  | 1 | 12434.09851 | 58059724.28 |
| 14 | 1 | 15640.55159 | 15 | 1 | 13505.48338 | 68769310.86 |
| 6  | 1 | 11882.55992 | 15 | 1 | 18250.9806  | 81132129.51 |
| 9  | 1 | 13214.10656 | 9  | 1 | 15422.17802 | 70237116.85 |
| 12 | 1 | 14155.54611 | 10 | 1 | 10841.15557 | 53756270.36 |
| 8  | 1 | 13422.30704 | 6  | 1 | 16001.62741 | 71668579.19 |
| 5  | 1 | 16580.39124 | 6  | 1 | 16612.0141  | 47671953.68 |
| 11 | 1 | 9803.715681 | 5  | 0 | 18894.22244 | 49987085.07 |
| 12 | 1 | 11532.97017 | 9  | 1 | 18027.76652 | 68794963.69 |
| 11 | 1 | 13490.39499 | 9  | 1 | 15368.85513 | 73873786.95 |
| 10 | 1 | 13616.28207 | 8  | 1 | 16297.53014 | 73626614.96 |
| 7  | 1 | 14385.82596 | 10 | 1 | 12625.81688 | 54007460.03 |
| 13 | 1 | 11245.76667 | 7  | 1 | 6059.007652 | 68543253.86 |
| 14 | 1 | 5696.760074 | 10 | 1 | 17897.05355 | 67884419.99 |
| 6  | 1 | 11506.52069 | 11 | 1 | 11151.52997 | 61095260.38 |
| 15 | 1 | 16623.68982 | 14 | 1 | 14754.5022  | 77150653.55 |
| 14 | 1 | 14737.21295 | 15 | 1 | 14144.47724 | 66035893.63 |
| 13 | 1 | 14755.62895 | 13 | 1 | 15418.56399 | 74816844.61 |
| 8  | 1 | 15515.23138 | 14 | 1 | 16244.70114 | 69552887.3  |
| 7  | 1 | 10852.30991 | 7  | 1 | 18545.77284 | 42689966.92 |
| 13 | 1 | 7218.289559 | 5  | 1 | 13940.76054 | 45370126.8  |
| 14 | 1 | 19647.49737 | 5  | 1 | 10303.46964 | 70459287.01 |
| 6  | 1 | 16582.11255 | 8  | 1 | 17414.62784 | 65262761.59 |
| 11 | 1 | 16619.11842 | 9  | 1 | 8230.657284 | 45925796.79 |
| 7  | 1 | 12301.15582 | 5  | 1 | 16141.54482 | 40290451.71 |
| 9  | 1 | 13079.38984 | 5  | 1 | 16201.33572 | 67412803.82 |
| 9  | 0 | 14233.01632 | 15 | 1 | 14181.09084 | 45157950.66 |
| 10 | 1 | 9493.885278 | 12 | 1 | 8290.61795  | 43051226.81 |
| 9  | 0 | 12917.75632 | 15 | 1 | 11487.59732 | 24724510.35 |
| 7  | 1 | 10005.45145 | 9  | 1 | 16737.78407 | 56106590.58 |
| 11 | 1 | 9576.153853 | 9  | 1 | 21380.68115 | 54046998.67 |
| 10 | 1 | 10862.55309 | 14 | 1 | 8675.36334  | 57077970.61 |
| 15 | 1 | 19463.07098 | 15 | 1 | 13773.72196 | 86156762.31 |
| 15 | 0 | 19084.88479 | 11 | 1 | 12556.09111 | 54304864.06 |
| 11 | 1 | 18123.61545 | 15 | 1 | 10208.09817 | 55016545.65 |

Q1-option1

|    |   |             |    |   |             |             |
|----|---|-------------|----|---|-------------|-------------|
| 7  | 1 | 15132.73727 | 11 | 1 | 9195.744118 | 65979008.6  |
| 9  | 1 | 14568.28482 | 9  | 1 | 13132.20599 | 65427604.09 |
| 10 | 1 | 17295.69941 | 8  | 1 | 14876.91382 | 74030633.23 |
| 9  | 1 | 11421.8132  | 15 | 0 | 15813.75791 | 44398534.55 |
| 8  | 1 | 17598.90223 | 12 | 1 | 14077.65881 | 75114655.32 |
| 7  | 1 | 15626.31268 | 10 | 1 | 17220.13285 | 72480526.22 |
| 11 | 1 | 17503.09255 | 5  | 1 | 14647.17915 | 82165888.01 |
| 5  | 1 | 14670.87162 | 15 | 1 | 13285.62567 | 71876587.77 |
| 15 | 1 | 18549.39362 | 11 | 1 | 10179.95865 | 74106465.63 |
| 10 | 1 | 15250.4702  | 14 | 1 | 21402.4857  | 63668497.39 |
| 7  | 1 | 14295.1736  | 9  | 1 | 16362.75479 | 70904689.24 |
| 5  | 1 | 14811.40615 | 10 | 0 | 13352.59819 | 56533115.03 |
| 9  | 1 | 14502.2914  | 7  | 1 | 17436.76394 | 69592982.71 |
| 5  | 1 | 13038.83496 | 14 | 1 | 15011.12155 | 67742779.77 |
| 14 | 1 | 13771.69604 | 7  | 1 | 15608.29981 | 74233931.66 |
| 6  | 1 | 14165.61604 | 7  | 1 | 13825.65021 | 74792592.58 |
| 9  | 1 | 10882.44199 | 8  | 1 | 14608.07428 | 63222043.23 |
| 13 | 1 | 17009.83677 | 15 | 1 | 16811.87073 | 73963079.79 |
| 12 | 1 | 15011.3547  | 6  | 1 | 12993.17968 | 70930156.76 |
| 6  | 1 | 17709.6236  | 12 | 1 | 11156.59641 | 74370026.9  |
| 14 | 1 | 17254.25097 | 12 | 1 | 15653.85396 | 66405538.71 |
| 6  | 0 | 12068.44597 | 5  | 1 | 18869.17732 | 50585433.73 |
| 6  | 1 | 15230.06275 | 15 | 1 | 12647.8142  | 55226571.87 |
| 6  | 1 | 13464.93193 | 10 | 1 | 9029.277891 | 55661181.05 |
| 9  | 1 | 12586.69654 | 11 | 1 | 14917.13119 | 67089086.07 |
| 15 | 1 | 14495.34999 | 11 | 1 | 12208.05088 | 64721396.01 |
| 12 | 1 | 13587.76472 | 7  | 1 | 12845.52278 | 69957149.3  |
| 6  | 1 | 12763.1006  | 14 | 1 | 15452.79227 | 70127050.02 |
| 5  | 1 | 17341.32848 | 5  | 1 | 13186.53059 | 69159614.28 |
| 15 | 1 | 14264.90462 | 7  | 1 | 13349.03199 | 70963098.77 |
| 15 | 1 | 12183.11644 | 7  | 1 | 13461.8855  | 35962262.62 |
| 15 | 1 | 15701.92019 | 7  | 1 | 19640.54998 | 64286139.64 |
| 11 | 1 | 19564.51105 | 15 | 1 | 12868.3804  | 48914824.47 |
| 12 | 1 | 13754.36288 | 8  | 1 | 14173.8993  | 75000518.1  |
| 14 | 1 | 14106.12616 | 5  | 1 | 6836.856449 | 49969732.58 |
| 14 | 1 | 17411.26001 | 6  | 1 | 10353.57825 | 76917926.27 |
| 7  | 1 | 12465.13069 | 9  | 1 | 16862.90616 | 76072031.5  |
| 5  | 1 | 15394.39873 | 10 | 1 | 11973.72538 | 67669288.29 |
| 10 | 1 | 11228.83163 | 10 | 1 | 10847.54174 | 54354961.32 |
| 7  | 1 | 7408.164427 | 15 | 1 | 12098.18495 | 47165170.7  |
| 10 | 1 | 8418.50293  | 10 | 1 | 19992.90878 | 69834251.16 |
| 14 | 1 | 17889.14844 | 13 | 1 | 14072.28947 | 73326908.26 |
| 12 | 1 | 15801.98212 | 6  | 1 | 11519.02557 | 51357815.3  |
| 9  | 0 | 17444.00292 | 5  | 1 | 14688.58559 | 41988757.8  |
| 6  | 1 | 19456.70488 | 12 | 1 | 9414.050175 | 57586666.94 |
| 8  | 1 | 17015.43156 | 15 | 1 | 19433.89925 | 75836126.19 |
| 11 | 1 | 10598.63707 | 8  | 1 | 16256.61099 | 53555320.21 |
| 13 | 1 | 11707.52969 | 14 | 1 | 13806.65026 | 61489407.15 |
| 7  | 1 | 10701.21269 | 6  | 1 | 19396.47319 | 68317986.58 |

Q1-option1

|    |   |             |    |   |             |             |
|----|---|-------------|----|---|-------------|-------------|
| 9  | 1 | 11035.66061 | 6  | 1 | 16289.58814 | 70787822.79 |
| 7  | 1 | 13471.75848 | 12 | 1 | 9747.908544 | 66127039.36 |
| 12 | 1 | 18256.75184 | 5  | 1 | 17510.54136 | 65969547.39 |
| 10 | 0 | 16558.18065 | 11 | 1 | 17474.61282 | 52344662.9  |
| 14 | 1 | 12691.90314 | 15 | 1 | 13915.03573 | 71563684.55 |
| 15 | 1 | 10516.44436 | 10 | 1 | 12217.56279 | 61836672.04 |
| 14 | 0 | 8792.012319 | 10 | 0 | 20564.28302 | 25317422.2  |
| 5  | 1 | 12341.13807 | 14 | 1 | 9400.446598 | 59995634.22 |
| 15 | 1 | 11371.39206 | 6  | 1 | 12515.3966  | 61208478.88 |
| 15 | 0 | 14254.87668 | 15 | 0 | 14769.94561 | 37648378.55 |
| 14 | 0 | 12368.50278 | 8  | 1 | 14893.99294 | 59777096.93 |
| 5  | 1 | 12260.23264 | 6  | 1 | 11370.31824 | 63704438.28 |
| 9  | 1 | 13561.9216  | 7  | 1 | 19085.37987 | 54940193.45 |
| 11 | 1 | 12460.84366 | 15 | 1 | 17529.56032 | 81607922.98 |
| 5  | 1 | 15502.38182 | 9  | 1 | 9414.577518 | 66698165.59 |
| 5  | 1 | 12232.27469 | 6  | 1 | 15705.28319 | 53736772.4  |
| 13 | 1 | 18375.7757  | 13 | 0 | 9579.616597 | 54822674.83 |
| 8  | 1 | 9377.930285 | 6  | 1 | 15040.373   | 69683913.91 |
| 7  | 1 | 13126.2336  | 11 | 1 | 9919.571253 | 66092233.81 |
| 15 | 1 | 11440.3278  | 10 | 1 | 14724.45817 | 70846792.28 |
| 10 | 1 | 18854.93566 | 9  | 1 | 20558.13433 | 91207214.97 |
| 9  | 0 | 9883.861336 | 6  | 1 | 16888.7819  | 58037639.84 |
| 10 | 1 | 15406.29843 | 6  | 1 | 15640.66662 | 82133437.1  |
| 10 | 0 | 14520.2476  | 11 | 1 | 10751.71406 | 55142152.9  |
| 6  | 1 | 17274.76724 | 5  | 1 | 17786.73373 | 57853157.3  |
| 9  | 1 | 12837.35246 | 13 | 1 | 17001.72665 | 68040796.53 |
| 5  | 0 | 9842.620353 | 14 | 1 | 13594.69409 | 52085386.98 |
| 13 | 1 | 15997.83873 | 14 | 1 | 14779.60558 | 80604559.8  |
| 9  | 0 | 13222.08207 | 10 | 1 | 10737.84617 | 52804042.92 |
| 15 | 1 | 14064.49251 | 15 | 1 | 8845.923724 | 74856470.87 |
| 13 | 1 | 9886.599507 | 10 | 1 | 11224.07129 | 63716744.59 |
| 8  | 1 | 8053.745545 | 11 | 1 | 12768.67587 | 79231653.48 |
| 5  | 1 | 11409.14844 | 7  | 1 | 15960.25474 | 58400981.13 |
| 7  | 1 | 16198.05281 | 13 | 0 | 18138.34153 | 63180037.8  |
| 12 | 1 | 20471.75324 | 14 | 1 | 15081.76527 | 48059336.58 |
| 15 | 1 | 14600.32283 | 6  | 1 | 13170.59373 | 52548572.41 |
| 11 | 1 | 17595.25765 | 9  | 1 | 15406.2274  | 78290216.47 |
| 7  | 1 | 16132.09382 | 6  | 1 | 14213.22097 | 74722186.19 |
| 9  | 1 | 14590.05074 | 9  | 1 | 11636.80773 | 63807629.74 |
| 15 | 1 | 8698.019585 | 6  | 1 | 7754.530406 | 63279141.71 |
| 7  | 1 | 12940.21979 | 8  | 1 | 9863.576408 | 67476890.55 |
| 8  | 1 | 19708.77485 | 12 | 1 | 13946.66533 | 76808729.33 |
| 8  | 1 | 13805.75459 | 5  | 1 | 16791.02188 | 72401407.63 |
| 5  | 1 | 16365.48488 | 12 | 1 | 20508.63807 | 52115709.73 |
| 15 | 1 | 10590.56146 | 6  | 1 | 14065.32877 | 43776084.89 |
| 5  | 1 | 14443.58984 | 5  | 1 | 18981.72105 | 74489829.07 |
| 11 | 1 | 16244.24917 | 6  | 0 | 15365.52184 | 46184656.21 |
| 15 | 1 | 9300.19323  | 10 | 1 | 9878.893876 | 68621639.37 |
| 11 | 1 | 12672.44027 | 5  | 1 | 13085.43098 | 55979954.74 |

Q1-option1

|    |   |             |    |   |             |             |
|----|---|-------------|----|---|-------------|-------------|
| 12 | 1 | 12835.60189 | 15 | 1 | 16958.98612 | 67000928.03 |
| 5  | 1 | 11029.30234 | 12 | 1 | 16594.64568 | 60207951.13 |
| 14 | 0 | 12786.31328 | 7  | 1 | 18922.57909 | 64801323.14 |
| 15 | 1 | 13607.61635 | 12 | 1 | 12447.71899 | 42281473.96 |
| 11 | 1 | 15681.3457  | 6  | 1 | 20109.62057 | 68677339.32 |
| 5  | 0 | 17077.29006 | 10 | 1 | 9044.600545 | 44343796.47 |
| 15 | 1 | 13816.85748 | 15 | 1 | 11847.66423 | 49329917.89 |
| 5  | 1 | 12429.96197 | 11 | 0 | 16187.62979 | 57823215.46 |
| 13 | 1 | 11948.80815 | 6  | 1 | 12032.23788 | 53015788.46 |
| 7  | 1 | 12769.48831 | 5  | 1 | 8868.614916 | 65665970.78 |
| 9  | 1 | 14622.23938 | 11 | 1 | 18616.78188 | 75130317.86 |
| 15 | 1 | 13650.4474  | 9  | 1 | 16667.86882 | 60941594.83 |
| 10 | 0 | 18697.99309 | 10 | 1 | 15232.89142 | 66448903.07 |
| 10 | 1 | 10746.4826  | 10 | 1 | 13669.0818  | 66128063.46 |
| 10 | 1 | 17159.21365 | 10 | 1 | 8874.192422 | 63814384.21 |
| 10 | 1 | 13144.08624 | 10 | 1 | 10133.85265 | 61334118.27 |
| 8  | 1 | 15337.18608 | 9  | 0 | 11362.95274 | 58820914.01 |
| 13 | 1 | 11116.74885 | 5  | 1 | 19727.69248 | 75743630.68 |
| 13 | 1 | 9789.972071 | 13 | 1 | 14537.99049 | 61235529.26 |
| 10 | 1 | 17533.69    | 13 | 1 | 14737.12855 | 61426819.06 |
| 7  | 1 | 15598.24621 | 11 | 0 | 12647.7027  | 43371836.29 |
| 10 | 1 | 14629.60266 | 5  | 1 | 13953.81944 | 73005083.5  |
| 11 | 1 | 14742.3718  | 9  | 1 | 13390.79745 | 68303211.4  |
| 10 | 1 | 14967.1683  | 9  | 1 | 15912.70888 | 69825642.7  |
| 7  | 1 | 16457.52379 | 6  | 1 | 13790.59401 | 63773077.88 |
| 10 | 1 | 14641.31901 | 14 | 0 | 15515.63535 | 65653143.56 |
| 7  | 1 | 19486.63275 | 12 | 1 | 19726.07662 | 80367826.53 |
| 8  | 1 | 12350.70325 | 9  | 1 | 15320.14091 | 71772622.71 |
| 10 | 1 | 13297.17407 | 13 | 1 | 9639.747116 | 56834202.16 |
| 12 | 1 | 13618.13062 | 10 | 1 | 13953.32371 | 66930250.55 |
| 7  | 1 | 11516.18483 | 7  | 1 | 19127.66666 | 65804826.74 |
| 11 | 1 | 14890.66573 | 13 | 1 | 10375.54433 | 50382024.62 |
| 10 | 1 | 14964.57378 | 7  | 1 | 13218.34691 | 81074739.7  |
| 5  | 1 | 12042.9779  | 11 | 1 | 17754.63276 | 71952081.52 |
| 9  | 1 | 12572.64795 | 7  | 1 | 14392.95794 | 73958916.12 |
| 14 | 1 | 7914.477226 | 9  | 1 | 14189.24829 | 69445557.01 |
| 12 | 1 | 18326.96662 | 15 | 0 | 12259.59269 | 45732884.69 |
| 6  | 1 | 8444.309571 | 12 | 1 | 12169.06008 | 59656119.58 |
| 6  | 1 | 16400.37302 | 9  | 1 | 17416.76197 | 46924271.6  |
| 7  | 1 | 15121.4102  | 13 | 1 | 16790.3457  | 73382443.68 |
| 13 | 1 | 10685.57947 | 6  | 1 | 16862.83373 | 71859984.16 |
| 7  | 1 | 16738.50389 | 7  | 1 | 10821.53198 | 65085837.85 |
| 5  | 1 | 12811.79882 | 11 | 1 | 12315.92548 | 63565622.97 |
| 15 | 1 | 15170.84155 | 7  | 1 | 16005.39331 | 75265648.5  |
| 8  | 1 | 15158.40609 | 9  | 1 | 18452.31253 | 80004740.95 |
| 9  | 1 | 18487.36028 | 12 | 1 | 12899.77139 | 68171088.7  |
| 15 | 1 | 12322.55464 | 10 | 1 | 17053.12674 | 77771206.39 |
| 12 | 1 | 14981.9596  | 6  | 1 | 12763.01437 | 70628740.84 |
| 15 | 1 | 10991.80954 | 9  | 1 | 12789.63692 | 65520970.37 |

# Q1-option1

|    |   |             |    |   |             |             |
|----|---|-------------|----|---|-------------|-------------|
| 12 | 1 | 15289.86927 | 9  | 0 | 11651.5876  | 61559500.66 |
| 7  | 1 | 18538.93547 | 9  | 1 | 14437.30829 | 77042171.12 |
| 13 | 1 | 13407.20713 | 9  | 1 | 13489.7081  | 74081420.53 |
| 13 | 1 | 16064.47477 | 14 | 1 | 14649.0846  | 69799498.71 |
| 11 | 1 | 7893.38536  | 14 | 1 | 14810.42905 | 71203218.03 |
| 11 | 1 | 10720.09188 | 12 | 1 | 12002.28959 | 36808229.69 |
| 13 | 1 | 14263.39985 | 7  | 1 | 19076.71876 | 74486139.32 |
| 11 | 1 | 16259.17178 | 12 | 1 | 16366.56074 | 81649651.25 |

Total profit (\$)

53859542.92  
48068055.56  
39441099.97  
38197386.15  
59963575.17  
58342623.98  
60012335.99  
48302280.02  
56116355.28  
51323110.8  
64188614.88  
60299691.75  
31194626.58  
47213473.06  
30620805.29  
32827014.3  
51714785.95  
56284417.89  
60145264.8  
56320025.2  
59494116.59  
55158124.54  
42696173.64  
60967057.89  
45039168.5  
30448513.86  
48775253.64  
59525316.65  
57184234.84  
53674705.48  
45665882.56  
49812914.16  
52992848.64  
63242816.64  
28502173.7  
42485012.46  
53086213.29  
49107006.86  
49634224.41  
55522762.22  
55375615.39  
52411511.07  
48265460.63  
45463841.25  
66681347.27  
49421047.08

Q1-option1

46025477.39  
40402484.66  
58122032.76  
53429625.95  
48652152.21  
62163118.82  
62872986.16  
54029390.28  
55694949.06  
48629310.72  
57622119.02  
56745534.28  
45839529.95  
60897401.3  
45559724.28  
56269310.86  
68632129.51  
57737116.85  
41256270.36  
59168579.19  
35171953.68  
37487085.07  
56294963.69  
61373786.95  
61126614.96  
41507460.03  
56043253.86  
55384419.99  
48595260.38  
64650653.55  
53535893.63  
62316844.61  
57052887.3  
30189966.92  
32870126.8  
57959287.01  
52762761.59  
33425796.79  
27790451.71  
54912803.82  
32657950.66  
30551226.81  
12224510.35  
43606590.58  
41546998.67  
44577970.61  
73656762.31  
41804864.06  
42516545.65

Q1-option1

53479008.6  
52927604.09  
61530633.23  
31898534.55  
62614655.32  
59980526.22  
69665888.01  
59376587.77  
61606465.63  
51168497.39  
58404689.24  
44033115.03  
57092982.71  
55242779.77  
61733931.66  
62292592.58  
50722043.23  
61463079.79  
58430156.76  
61870026.9  
53905538.71  
38085433.73  
42726571.87  
43161181.05  
54589086.07  
52221396.01  
57457149.3  
57627050.02  
56659614.28  
58463098.77  
23462262.62  
51786139.64  
36414824.47  
62500518.1  
37469732.58  
64417926.27  
63572031.5  
55169288.29  
41854961.32  
34665170.7  
57334251.16  
60826908.26  
38857815.3  
29488757.8  
45086666.94  
63336126.19  
41055320.21  
48989407.15  
55817986.58



Q1-option1

58287822.79  
53627039.36  
53469547.39  
39844662.9  
59063684.55  
49336672.04  
12817422.2  
47495634.22  
48708478.88  
25148378.55  
47277096.93  
51204438.28  
42440193.45  
69107922.98  
54198165.59  
41236772.4  
42322674.83  
57183913.91  
53592233.81  
58346792.28  
78707214.97  
45537639.84  
69633437.1  
42642152.9  
45353157.3  
55540796.53  
39585386.98  
68104559.8  
40304042.92  
62356470.87  
51216744.59  
66731653.48  
45900981.13  
50680037.8  
35559336.58  
40048572.41  
65790216.47  
62222186.19  
51307629.74  
50779141.71  
54976890.55  
64308729.33  
59901407.63  
39615709.73  
31276084.89  
61989829.07  
33684656.21  
56121639.37  
43479954.74

Q1-option1

54500928.03  
47707951.13  
52301323.14  
29781473.96  
56177339.32  
31843796.47  
36829917.89  
45323215.46  
40515788.46  
53165970.78  
62630317.86  
48441594.83  
53948903.07  
53628063.46  
51314384.21  
48834118.27  
46320914.01  
63243630.68  
48735529.26  
48926819.06  
30871836.29  
60505083.5  
55803211.4  
57325642.7  
51273077.88  
53153143.56  
67867826.53  
59272622.71  
44334202.16  
54430250.55  
53304826.74  
37882024.62  
68574739.7  
59452081.52  
61458916.12  
56945557.01  
33232884.69  
47156119.58  
34424271.6  
60882443.68  
59359984.16  
52585837.85  
51065622.97  
62765648.5  
67504740.95  
55671088.7  
65271206.39  
58128740.84  
53020970.37

Q1-option1

49059500.66  
64542171.12  
61581420.53  
57299498.71  
58703218.03  
24308229.69  
61986139.32  
69149651.25

# Q1-option2

| Given   |          | Simulation    |               |
|---|----------|---------------|---------------|
| Produce total (kg)                                  | 5000     | Shipment num  | 1             |
| Production cost (\$/kg)                             | 2000     | Simulation nu | Success?      |
| Cocaine per shipment (kg)                           | 500      | 1             | 1 13404.72867 |
| Shipping cost (\$/kg)                               | 650      | 2             | 1 13070.13186 |
| Chance caught (%)                                   | 5        | 3             | 1 8450.987425 |
| Sales price (\$)                                    | 14000    | 4             | 1 8903.197797 |
| Sales price stddev (\$)                             | 3000     | 5             | 1 17532.48115 |
|   |          | 6             | 1 15967.62927 |
| Assumption  |          | 7             | 1 10663.48252 |
| Pay for transport whether it's failed or succeeded. |          | 8             | 1 15301.296   |
|   |          | 9             | 1 11038.27147 |
| Calculated  |          | 10            | 1 13648.47488 |
| Production cost (\$)                                | 10000000 | 11            | 1 13292.96214 |
| Shipping cost (\$)                                  | 3250000  | 12            | 1 16222.84206 |
| Number of shipments                                 | 10       | 13            | 1 13936.56554 |
| Total cost (\$)                                     | 13250000 | 14            | 1 18142.34365 |
|   |          | 15            | 1 17951.1414  |
|   |          | 16            | 1 14138.5769  |
|   |          | 17            | 0 15340.69544 |
|   |          | 18            | 0 5229.792083 |
|   |          | 19            | 0 13984.73004 |
|   |          | 20            | 1 12592.37582 |
|   |          | 21            | 1 13051.28546 |
|   |          | 22            | 0 13010.24371 |
|   |          | 23            | 1 11681.41397 |
|   |          | 24            | 1 14963.73953 |
|   |          | 25            | 1 20568.46846 |
|   |          | 26            | 1 13117.68142 |
|   |          | 27            | 1 12000.08554 |
|   |          | 28            | 1 9452.298678 |
|   |          | 29            | 1 12710.81436 |
|   |          | 30            | 1 13576.71483 |
|   |          | 31            | 1 15945.92834 |
|   |          | 32            | 1 11497.39982 |
|   |          | 33            | 1 11650.58512 |
|   |          | 34            | 1 17743.47699 |
|   |          | 35            | 1 13821.7406  |
|   |          | 36            | 1 11921.81892 |
|   |          | 37            | 1 15536.46544 |
|   |          | 38            | 1 15640.18436 |
|   |          | 39            | 1 16453.71733 |
|   |          | 40            | 1 14614.15283 |
|   |          | 41            | 1 8452.458689 |
|   |          | 42            | 1 15948.84581 |
|   |          | 43            | 1 14416.67994 |
|   |          | 44            | 1 12579.17247 |
|   |          | 45            | 1 15848.81354 |
|   |          | 46            | 1 11957.60874 |

Q1-option2

|    |   |             |
|----|---|-------------|
| 47 | 1 | 9296.541988 |
| 48 | 1 | 15562.16063 |
| 49 | 1 | 19065.14809 |
| 50 | 1 | 18266.0585  |
| 51 | 1 | 17188.67869 |
| 52 | 1 | 16462.30374 |
| 53 | 1 | 8263.696012 |
| 54 | 1 | 14899.97438 |
| 55 | 1 | 16048.44918 |
| 56 | 1 | 10453.20647 |
| 57 | 1 | 12972.52897 |
| 58 | 1 | 15417.61649 |
| 59 | 1 | 13385.0756  |
| 60 | 1 | 16148.67182 |
| 61 | 0 | 18347.11556 |
| 62 | 1 | 17871.76752 |
| 63 | 1 | 19269.73436 |
| 64 | 1 | 18119.33185 |
| 65 | 1 | 17253.49312 |
| 66 | 1 | 17897.99345 |
| 67 | 1 | 14779.77563 |
| 68 | 1 | 11318.65022 |
| 69 | 1 | 12945.42516 |
| 70 | 1 | 13324.6104  |
| 71 | 1 | 15816.69433 |
| 72 | 0 | 7100.122078 |
| 73 | 1 | 10930.04316 |
| 74 | 1 | 13101.35534 |
| 75 | 1 | 15743.97481 |
| 76 | 1 | 13313.04502 |
| 77 | 1 | 15379.47169 |
| 78 | 1 | 14155.6734  |
| 79 | 1 | 13846.14796 |
| 80 | 1 | 14913.87091 |
| 81 | 1 | 15876.75923 |
| 82 | 1 | 5794.271768 |
| 83 | 1 | 11570.14811 |
| 84 | 1 | 11924.42807 |
| 85 | 1 | 13178.92775 |
| 86 | 1 | 15728.88094 |
| 87 | 1 | 12629.03432 |
| 88 | 1 | 17330.06402 |
| 89 | 1 | 16344.80833 |
| 90 | 1 | 14444.70307 |
| 91 | 1 | 14411.83662 |
| 92 | 1 | 16907.25796 |
| 93 | 1 | 14015.70293 |
| 94 | 1 | 13510.90782 |
| 95 | 1 | 11557.0141  |

Q1-option2

|     |   |             |
|-----|---|-------------|
| 96  | 1 | 10255.64842 |
| 97  | 1 | 13638.42968 |
| 98  | 0 | 10924.30333 |
| 99  | 1 | 12558.30861 |
| 100 | 1 | 14541.88057 |
| 101 | 1 | 10774.04575 |
| 102 | 1 | 14778.08676 |
| 103 | 1 | 16848.96848 |
| 104 | 1 | 13197.47988 |
| 105 | 1 | 10839.7204  |
| 106 | 1 | 15737.50438 |
| 107 | 1 | 17607.40813 |
| 108 | 0 | 19293.99814 |
| 109 | 1 | 12565.39835 |
| 110 | 1 | 18540.83785 |
| 111 | 1 | 10556.30832 |
| 112 | 1 | 16161.07289 |
| 113 | 0 | 12409.77763 |
| 114 | 1 | 17587.38922 |
| 115 | 1 | 16613.78607 |
| 116 | 1 | 15083.54311 |
| 117 | 0 | 17463.37933 |
| 118 | 1 | 14027.46221 |
| 119 | 1 | 16089.64891 |
| 120 | 1 | 14184.08278 |
| 121 | 0 | 9536.774189 |
| 122 | 1 | 13288.15498 |
| 123 | 1 | 11074.97044 |
| 124 | 1 | 12900.69438 |
| 125 | 1 | 7714.132385 |
| 126 | 1 | 17205.76685 |
| 127 | 1 | 16588.57654 |
| 128 | 1 | 16008.85194 |
| 129 | 0 | 14616.3993  |
| 130 | 1 | 17662.8161  |
| 131 | 1 | 14362.37236 |
| 132 | 1 | 4853.016091 |
| 133 | 1 | 13342.68662 |
| 134 | 1 | 15305.65889 |
| 135 | 1 | 14675.90588 |
| 136 | 1 | 16617.08689 |
| 137 | 1 | 13988.42047 |
| 138 | 1 | 15300.10567 |
| 139 | 1 | 8774.399145 |
| 140 | 1 | 16067.63548 |
| 141 | 1 | 14888.07461 |
| 142 | 1 | 12417.0196  |
| 143 | 1 | 16808.01748 |
| 144 | 1 | 16533.37827 |

Q1-option2

|     |               |
|-----|---------------|
| 145 | 1 15995.94499 |
| 146 | 1 15117.30955 |
| 147 | 1 12405.21619 |
| 148 | 1 14362.37236 |
| 149 | 1 17739.71563 |
| 150 | 1 14223.58304 |
| 151 | 1 14602.31757 |
| 152 | 1 16127.49012 |
| 153 | 1 13479.88346 |
| 154 | 1 14967.23249 |
| 155 | 1 10199.15696 |
| 156 | 1 13652.66027 |
| 157 | 1 15910.55358 |
| 158 | 1 9393.420723 |
| 159 | 1 15049.2265  |
| 160 | 1 19623.31103 |
| 161 | 1 13848.95594 |
| 162 | 1 17192.78584 |
| 163 | 1 14559.05481 |
| 164 | 1 18257.44641 |
| 165 | 1 11609.54231 |
| 166 | 1 10699.83837 |
| 167 | 1 17238.49044 |
| 168 | 1 10720.94023 |
| 169 | 1 16969.67362 |
| 170 | 1 12469.91689 |
| 171 | 1 11716.83191 |
| 172 | 1 19391.94371 |
| 173 | 1 15452.35972 |
| 174 | 0 16515.09301 |
| 175 | 1 18586.38719 |
| 176 | 1 16781.66173 |
| 177 | 1 18554.56041 |
| 178 | 1 16619.74651 |
| 179 | 1 7383.912443 |
| 180 | 1 14021.04731 |
| 181 | 1 13945.19104 |
| 182 | 1 10625.38313 |
| 183 | 1 11877.69307 |
| 184 | 1 14164.30663 |
| 185 | 1 14525.87732 |
| 186 | 1 16000.39112 |
| 187 | 1 7718.052886 |
| 188 | 1 13483.28646 |
| 189 | 1 16286.89773 |
| 190 | 1 14532.38286 |
| 191 | 1 14155.79046 |
| 192 | 1 11155.22035 |
| 193 | 1 15753.77736 |

Q1-option2

|     |   |             |
|-----|---|-------------|
| 194 | 1 | 13086.72518 |
| 195 | 1 | 15895.70653 |
| 196 | 1 | 10624.43358 |
| 197 | 1 | 15572.07212 |
| 198 | 1 | 14064.11487 |
| 199 | 1 | 14553.17693 |
| 200 | 1 | 14830.70524 |
| 201 | 1 | 14179.94954 |
| 202 | 1 | 15870.00882 |
| 203 | 1 | 17791.36917 |
| 204 | 1 | 9827.233196 |
| 205 | 1 | 8576.944653 |
| 206 | 1 | 11412.40289 |
| 207 | 1 | 13760.04086 |
| 208 | 1 | 12341.95752 |
| 209 | 1 | 13085.13899 |
| 210 | 1 | 11503.8216  |
| 211 | 1 | 11202.37623 |
| 212 | 1 | 16085.50697 |
| 213 | 1 | 13259.39535 |
| 214 | 1 | 16909.6743  |
| 215 | 1 | 14826.87359 |
| 216 | 1 | 17250.60467 |
| 217 | 1 | 18516.61977 |
| 218 | 0 | 12940.82095 |
| 219 | 1 | 16439.78933 |
| 220 | 1 | 19584.29317 |
| 221 | 1 | 16295.23483 |
| 222 | 1 | 14518.21753 |
| 223 | 1 | 14601.45938 |
| 224 | 1 | 14326.21613 |
| 225 | 1 | 14970.17491 |
| 226 | 1 | 17190.09092 |
| 227 | 1 | 16426.28233 |
| 228 | 1 | 8560.682449 |
| 229 | 1 | 16434.93719 |
| 230 | 0 | 16265.30368 |
| 231 | 1 | 19393.95742 |
| 232 | 1 | 15282.00277 |
| 233 | 1 | 15267.67902 |
| 234 | 1 | 11847.85401 |
| 235 | 1 | 15591.26512 |
| 236 | 1 | 16794.89548 |
| 237 | 1 | 11326.46805 |
| 238 | 0 | 12763.62759 |
| 239 | 1 | 17434.65956 |
| 240 | 1 | 7485.89347  |
| 241 | 1 | 14306.30203 |
| 242 | 1 | 17871.33818 |



Q1-option2

|     |   |             |
|-----|---|-------------|
| 243 | 1 | 13734.46886 |
| 244 | 1 | 11012.06482 |
| 245 | 1 | 9381.049447 |
| 246 | 1 | 17186.93251 |
| 247 | 1 | 14524.83576 |
| 248 | 1 | 14371.34616 |
| 249 | 1 | 15518.73239 |
| 250 | 1 | 12504.11274 |

Q1-option2

| Success? | 2             | Success? | 3             | Success? | 4             | Success? | 5 |
|----------|---------------|----------|---------------|----------|---------------|----------|---|
|          | Sale price    |          | Sale price    |          | Sale price    |          |   |
|          | 1 10997.16919 |          | 1 9160.945921 |          | 1 16220.42548 |          | 1 |
|          | 1 8141.217766 |          | 1 16946.83927 |          | 0 14989.9598  |          | 1 |
|          | 1 13641.88005 |          | 1 10973.71676 |          | 1 15149.28789 |          | 1 |
|          | 1 11254.10391 |          | 1 17905.55881 |          | 1 19144.16545 |          | 1 |
|          | 1 15419.02806 |          | 1 16707.32231 |          | 1 17621.82067 |          | 0 |
|          | 1 13091.88958 |          | 1 12111.73948 |          | 1 17816.63727 |          | 1 |
|          | 1 9810.675909 |          | 1 9417.060996 |          | 1 8756.983712 |          | 1 |
|          | 1 9496.116362 |          | 1 17532.48287 |          | 1 14016.5502  |          | 1 |
|          | 0 16363.99052 |          | 1 14352.38356 |          | 1 12530.19776 |          | 1 |
|          | 0 18446.65242 |          | 1 13723.65679 |          | 1 16391.21874 |          | 1 |
|          | 1 11619.58372 |          | 1 13148.34837 |          | 1 11078.14922 |          | 1 |
|          | 1 17405.96338 |          | 1 16266.78987 |          | 1 15784.00262 |          | 1 |
|          | 1 13218.49122 |          | 1 11582.161   |          | 1 14724.83141 |          | 1 |
|          | 1 10250.61842 |          | 1 10814.42023 |          | 1 11641.79629 |          | 1 |
|          | 1 19805.48786 |          | 1 17009.0984  |          | 1 12603.97222 |          | 1 |
|          | 0 13337.87926 |          | 1 11252.39613 |          | 1 15014.88111 |          | 1 |
|          | 1 16691.98821 |          | 1 10587.57784 |          | 1 13572.6829  |          | 1 |
|          | 1 15959.57121 |          | 1 14545.90601 |          | 1 13527.28283 |          | 1 |
|          | 1 13633.02956 |          | 1 11873.58002 |          | 1 12691.19377 |          | 1 |
|          | 1 20054.27722 |          | 1 13148.6995  |          | 1 16164.12249 |          | 1 |
|          | 1 12213.52367 |          | 1 10176.95054 |          | 1 11526.04674 |          | 1 |
|          | 1 13284.87853 |          | 1 21969.57875 |          | 1 15187.22685 |          | 1 |
|          | 1 10379.54301 |          | 1 14523.87656 |          | 1 13352.39184 |          | 1 |
|          | 1 19784.24701 |          | 1 18839.53607 |          | 1 21138.8479  |          | 1 |
|          | 1 10067.65534 |          | 1 10918.37131 |          | 1 15273.08304 |          | 1 |
|          | 1 16952.78718 |          | 1 14577.10569 |          | 1 10141.69015 |          | 1 |
|          | 1 15706.61032 |          | 1 15846.89854 |          | 1 14583.17418 |          | 1 |
|          | 1 15379.56466 |          | 1 7826.000652 |          | 1 14512.69901 |          | 1 |
|          | 1 14941.8361  |          | 1 16049.36657 |          | 1 17720.61876 |          | 1 |
|          | 1 19784.61378 |          | 1 16792.02481 |          | 0 13800.41643 |          | 1 |
|          | 1 14865.93376 |          | 1 15339.39434 |          | 1 11289.05713 |          | 1 |
|          | 1 11593.63116 |          | 0 12789.13441 |          | 1 16552.50278 |          | 1 |
|          | 1 13464.77414 |          | 1 11742.86154 |          | 1 9620.537167 |          | 1 |
|          | 1 10846.15486 |          | 1 17216.31852 |          | 1 17523.26494 |          | 1 |
|          | 1 10281.92061 |          | 0 14544.52733 |          | 1 14636.14892 |          | 1 |
|          | 1 17548.15134 |          | 1 13946.15296 |          | 1 12377.19101 |          | 1 |
|          | 1 12251.45734 |          | 1 13355.17454 |          | 1 15130.67071 |          | 1 |
|          | 1 13479.50252 |          | 1 14498.23274 |          | 1 15439.86176 |          | 1 |
|          | 1 17793.8567  |          | 0 9294.011333 |          | 1 10898.59451 |          | 1 |
|          | 1 16484.24916 |          | 1 18896.41394 |          | 1 18169.13656 |          | 1 |
|          | 1 5965.583425 |          | 1 11964.39706 |          | 1 12372.44369 |          | 1 |
|          | 1 15518.90471 |          | 1 10426.02509 |          | 1 15740.7348  |          | 1 |
|          | 1 14449.56223 |          | 0 13623.16336 |          | 1 10723.9333  |          | 1 |
|          | 1 17056.96409 |          | 1 16705.75962 |          | 1 10284.42254 |          | 1 |
|          | 1 16506.31197 |          | 1 15039.69929 |          | 1 17711.81597 |          | 1 |
|          | 1 13018.42401 |          | 1 9691.093986 |          | 1 12215.55153 |          | 1 |

Q1-option2

|               |               |               |   |
|---------------|---------------|---------------|---|
| 1 13008.38966 | 1 17677.12846 | 0 11945.61818 | 1 |
| 1 15669.62776 | 1 13035.02722 | 1 14865.94464 | 1 |
| 1 11892.47648 | 1 14409.3212  | 1 12873.64123 | 0 |
| 1 15318.18627 | 1 15342.22792 | 1 15338.87892 | 1 |
| 1 17429.53726 | 1 12223.63497 | 1 22810.32804 | 1 |
| 1 14428.57576 | 1 13557.23888 | 1 17378.7843  | 1 |
| 1 11631.23726 | 1 10397.45704 | 1 10742.96655 | 1 |
| 1 8913.347304 | 1 14342.21331 | 1 13134.96798 | 1 |
| 1 14405.568   | 1 18574.38657 | 1 10704.01882 | 1 |
| 1 15776.49809 | 1 16417.22983 | 1 16259.35414 | 1 |
| 1 14174.13497 | 1 10764.76723 | 1 13737.66832 | 1 |
| 1 13350.4336  | 1 15255.43088 | 1 13574.1787  | 1 |
| 1 13205.8026  | 1 13526.12498 | 1 14251.17674 | 1 |
| 1 14148.72539 | 1 16780.47324 | 1 13154.48034 | 1 |
| 1 13469.69839 | 1 16120.45598 | 1 11632.50339 | 1 |
| 1 17649.07464 | 1 12359.77863 | 1 11861.19764 | 1 |
| 1 12363.72212 | 1 14596.34573 | 1 12217.81962 | 1 |
| 1 11714.39873 | 1 10911.64808 | 1 11200.684   | 1 |
| 1 11945.89829 | 1 12215.74223 | 1 10901.05422 | 1 |
| 1 16882.23086 | 1 18961.91658 | 1 16604.93296 | 1 |
| 1 13763.85646 | 1 12217.3663  | 1 15288.26922 | 1 |
| 0 17211.94267 | 1 7879.705478 | 0 12492.36498 | 1 |
| 1 16571.12509 | 1 11904.69803 | 1 10680.16439 | 1 |
| 1 10513.77786 | 1 15394.30439 | 1 15699.01865 | 1 |
| 1 11921.98828 | 1 15823.04935 | 1 16042.15506 | 0 |
| 1 12402.65111 | 1 11588.89558 | 1 14759.09194 | 1 |
| 1 14134.64509 | 1 15987.65398 | 1 12156.88305 | 1 |
| 1 15323.67372 | 1 20454.24069 | 1 9487.900455 | 1 |
| 1 17879.07411 | 0 15721.01409 | 1 16029.94752 | 1 |
| 1 13746.89541 | 1 10443.46682 | 1 17729.76367 | 1 |
| 1 9546.410337 | 1 9946.521764 | 1 13922.60906 | 1 |
| 1 14219.24669 | 1 13189.75063 | 1 15248.38544 | 1 |
| 1 13855.45177 | 1 12977.94422 | 1 14338.48659 | 1 |
| 1 15751.83702 | 1 17121.03553 | 1 12872.11206 | 1 |
| 1 17170.49363 | 1 16754.96731 | 1 15452.00052 | 1 |
| 1 15900.11887 | 1 13666.48466 | 1 13970.93198 | 1 |
| 1 16304.65632 | 0 19485.00574 | 1 11685.64215 | 1 |
| 1 9877.02784  | 1 15931.38087 | 1 12258.95282 | 1 |
| 1 12302.69508 | 1 8155.907558 | 1 11864.98101 | 1 |
| 0 18668.20406 | 1 16608.34946 | 1 7892.908552 | 1 |
| 1 19669.76174 | 1 12274.80887 | 1 13041.88509 | 1 |
| 1 14592.45556 | 1 17028.1156  | 1 12095.74845 | 1 |
| 1 12406.35139 | 1 14543.12892 | 1 12389.3961  | 1 |
| 1 17539.53503 | 1 13823.73033 | 1 17524.25131 | 1 |
| 1 10066.64693 | 1 15036.84645 | 1 9255.789561 | 1 |
| 1 9183.585339 | 1 14922.73676 | 1 13228.45135 | 1 |
| 1 14052.08983 | 1 11898.09418 | 1 13308.6502  | 1 |
| 0 16822.37829 | 1 8559.648502 | 0 18237.72746 | 1 |
| 1 10856.37196 | 1 10574.02695 | 1 16468.42564 | 1 |

Q1-option2

|               |               |               |   |
|---------------|---------------|---------------|---|
| 1 10162.76302 | 1 13546.58725 | 1 13289.52097 | 1 |
| 1 12420.74074 | 1 12599.63875 | 1 12231.3912  | 1 |
| 1 14510.29947 | 1 18438.35247 | 1 14948.95752 | 0 |
| 1 15208.01899 | 1 10774.76602 | 1 17269.83938 | 0 |
| 1 11974.17495 | 1 10616.66852 | 1 13120.35398 | 1 |
| 1 12403.03043 | 1 12410.18886 | 1 15576.98851 | 0 |
| 1 12075.99514 | 1 14637.45945 | 0 11599.30882 | 1 |
| 1 11962.38626 | 1 13055.08779 | 1 13418.30331 | 1 |
| 1 16222.01934 | 0 13048.69248 | 1 14449.54373 | 1 |
| 0 13981.21493 | 1 17623.47095 | 1 20291.44875 | 1 |
| 1 11457.26397 | 1 16233.51499 | 1 14406.66753 | 1 |
| 1 12784.87211 | 1 6401.688047 | 1 17380.13531 | 1 |
| 1 13476.67175 | 1 13290.31238 | 1 16271.91526 | 1 |
| 1 17115.29674 | 1 9552.326665 | 1 12177.97257 | 1 |
| 1 15852.97524 | 1 18495.84938 | 1 15964.06594 | 1 |
| 1 17168.6018  | 1 12244.49845 | 1 14844.66721 | 1 |
| 1 20962.8333  | 1 12356.26573 | 1 12882.15065 | 1 |
| 1 10761.36987 | 1 11588.89558 | 1 9847.593247 | 1 |
| 1 16480.82142 | 1 13757.79407 | 1 17234.12573 | 1 |
| 1 9243.916885 | 1 13877.43228 | 1 15595.7876  | 1 |
| 1 14831.44751 | 1 13121.18589 | 1 20188.04289 | 1 |
| 1 13821.42171 | 1 15677.69326 | 1 12206.88092 | 1 |
| 1 11911.79784 | 1 17043.90642 | 1 18859.80373 | 1 |
| 1 20030.60156 | 1 11410.8722  | 1 16627.96101 | 1 |
| 1 14577.94762 | 1 16995.59286 | 1 16624.31359 | 1 |
| 1 18971.0867  | 1 13613.86532 | 1 14906.94598 | 1 |
| 1 15488.4563  | 1 16959.9694  | 0 13599.11883 | 1 |
| 1 11362.35329 | 1 16168.11646 | 1 18466.17274 | 1 |
| 1 9712.900727 | 1 10357.96636 | 1 10366.65039 | 1 |
| 1 12724.03891 | 1 18044.38223 | 1 6172.860253 | 1 |
| 1 15940.77286 | 1 19060.90627 | 1 13630.58181 | 1 |
| 1 14892.05402 | 1 16934.36045 | 1 12521.12956 | 1 |
| 1 14381.85429 | 1 11634.52658 | 1 18153.12308 | 1 |
| 1 17493.42351 | 1 14116.84495 | 1 17340.53187 | 1 |
| 1 12484.34514 | 1 11485.08224 | 0 13557.55174 | 1 |
| 0 15342.96809 | 1 10407.18142 | 1 13183.5505  | 1 |
| 1 16643.34798 | 1 15021.98578 | 1 14620.6613  | 1 |
| 0 19843.80405 | 1 13194.14088 | 1 16292.04732 | 1 |
| 1 13823.89543 | 1 17463.13666 | 1 14050.81531 | 1 |
| 1 15538.83473 | 1 14777.48039 | 1 15955.17692 | 1 |
| 1 20084.72519 | 1 15207.94019 | 1 16248.63983 | 1 |
| 1 14039.66985 | 1 17761.49825 | 0 16244.83755 | 1 |
| 1 14947.34691 | 1 22311.70115 | 1 15913.48704 | 1 |
| 1 9013.22734  | 1 17181.19491 | 1 15573.86901 | 0 |
| 1 21885.60927 | 1 11312.54582 | 1 16135.86582 | 0 |
| 1 12442.50118 | 1 11776.28378 | 1 8291.593683 | 1 |
| 1 15196.13926 | 1 9627.801286 | 1 17034.63267 | 1 |
| 1 14391.07728 | 1 11533.02021 | 1 15662.15118 | 1 |
| 1 11115.97772 | 1 16031.56571 | 1 17173.83658 | 1 |

Q1-option2

|               |               |               |   |
|---------------|---------------|---------------|---|
| 1 14656.72516 | 1 11384.22575 | 1 13927.06887 | 1 |
| 1 15631.21035 | 1 14776.11502 | 0 10637.51779 | 1 |
| 1 14314.67565 | 1 18345.56419 | 1 10763.91416 | 1 |
| 1 10439.35947 | 1 16710.16816 | 1 19298.7656  | 1 |
| 1 15410.87677 | 1 15083.02212 | 1 11741.0553  | 0 |
| 1 14285.89496 | 1 16706.19056 | 1 17743.971   | 1 |
| 1 11729.96555 | 0 14209.64259 | 1 12877.37467 | 1 |
| 1 14290.65993 | 1 20395.04446 | 1 12164.869   | 1 |
| 1 13560.04273 | 1 15754.54589 | 1 8312.375234 | 1 |
| 0 13327.24343 | 1 15653.82574 | 1 14905.93325 | 1 |
| 1 9831.523444 | 1 13378.86213 | 1 8979.801584 | 1 |
| 1 16888.89272 | 1 18297.79674 | 1 16374.42808 | 1 |
| 1 13246.05347 | 1 10669.9469  | 1 11434.8228  | 1 |
| 1 13130.38057 | 0 12121.57398 | 1 12955.86549 | 1 |
| 1 12941.14456 | 1 9793.109039 | 1 13386.36061 | 1 |
| 1 14948.63077 | 1 11737.75934 | 1 15658.39598 | 1 |
| 1 13907.24177 | 0 14591.12746 | 1 13010.84192 | 1 |
| 1 15153.14277 | 1 12375.00217 | 1 10387.54868 | 1 |
| 1 18287.04866 | 1 14689.08169 | 1 12683.26961 | 1 |
| 1 12390.64531 | 1 17118.18208 | 1 15372.16539 | 1 |
| 1 15387.13277 | 1 13755.74171 | 1 16329.65762 | 1 |
| 1 8427.443536 | 1 10756.94966 | 1 14127.23709 | 1 |
| 1 17046.53811 | 1 13132.68386 | 1 16871.7775  | 1 |
| 1 14036.72819 | 1 14949.74806 | 1 16968.98693 | 1 |
| 1 16921.66753 | 1 16401.61303 | 1 19015.05174 | 1 |
| 1 16979.10092 | 1 15347.63877 | 1 16461.31126 | 1 |
| 1 18605.38527 | 1 16713.61166 | 1 14879.6157  | 1 |
| 1 15712.93125 | 1 15895.1866  | 0 14274.90245 | 1 |
| 1 14006.98189 | 1 9987.526189 | 1 10405.26364 | 1 |
| 1 15164.9802  | 1 13314.30081 | 1 5725.956478 | 1 |
| 1 17258.60267 | 1 13976.25152 | 1 18292.83658 | 1 |
| 1 16333.4038  | 1 16481.19008 | 1 17124.21    | 1 |
| 1 18496.92292 | 1 14488.06077 | 1 11760.07115 | 0 |
| 1 11636.8341  | 1 9802.099668 | 1 17312.27755 | 1 |
| 1 11048.02946 | 1 15187.34635 | 1 10313.99367 | 1 |
| 0 12077.64402 | 1 8124.42076  | 1 16745.47181 | 1 |
| 1 9891.026878 | 1 15319.21506 | 1 15206.71388 | 1 |
| 1 16790.78544 | 1 12508.85805 | 1 16297.49818 | 1 |
| 1 13661.90096 | 1 13433.23466 | 1 12601.21173 | 1 |
| 1 17581.94918 | 1 18185.59669 | 1 17802.64753 | 1 |
| 1 8603.72356  | 1 11698.91988 | 1 13860.92971 | 1 |
| 1 13755.48547 | 1 14709.59057 | 0 16017.61603 | 1 |
| 1 16913.81483 | 1 12916.09778 | 1 14852.41777 | 1 |
| 0 14993.31513 | 1 14510.93252 | 1 21116.87131 | 1 |
| 1 17900.53316 | 1 11316.77729 | 1 18029.61636 | 1 |
| 1 13132.89684 | 1 13744.38718 | 1 13967.61532 | 1 |
| 1 9991.484293 | 1 15258.49582 | 1 13078.61712 | 1 |
| 1 14959.68779 | 1 13131.21921 | 1 18411.72169 | 1 |
| 1 10293.49407 | 1 16053.15108 | 1 14217.44311 | 1 |

Q1-option2

|               |               |               |   |
|---------------|---------------|---------------|---|
| 1 17060.84175 | 1 15533.81248 | 1 9027.278887 | 1 |
| 1 12435.24582 | 1 15995.58979 | 1 13166.16733 | 1 |
| 1 12394.35971 | 1 17952.67332 | 1 16714.25568 | 1 |
| 1 15963.6998  | 1 15620.59397 | 1 15251.86719 | 1 |
| 0 19884.66382 | 1 16877.05243 | 1 17802.94779 | 1 |
| 1 17504.52772 | 1 10994.68523 | 1 15212.89724 | 1 |
| 1 11753.11813 | 1 8886.808361 | 1 17466.05707 | 1 |
| 1 15915.85527 | 1 17328.1819  | 1 18777.12437 | 0 |
| 1 12637.33656 | 1 10426.66373 | 1 19114.01005 | 1 |
| 1 12969.95658 | 1 15633.76892 | 1 10547.0843  | 0 |
| 1 10461.62196 | 1 11605.02455 | 1 14562.19244 | 1 |
| 1 13592.37947 | 0 10769.12624 | 1 12493.43407 | 1 |
| 1 11016.02337 | 1 14239.71613 | 1 9218.173236 | 1 |
| 1 16031.61296 | 1 12783.04816 | 1 11064.01799 | 1 |
| 1 13849.15356 | 1 20770.56094 | 1 17259.51644 | 1 |
| 1 17009.13002 | 1 15266.29802 | 1 15160.44345 | 1 |
| 1 6492.957292 | 1 11717.12381 | 1 8731.911548 | 1 |
| 0 15058.42765 | 1 22268.72326 | 1 15275.19522 | 1 |
| 1 18324.72319 | 1 13563.06133 | 1 12143.00461 | 1 |
| 1 14939.39227 | 1 17477.75871 | 1 17015.67622 | 1 |
| 1 14903.49193 | 1 15610.12998 | 1 10154.30217 | 1 |
| 1 14485.10535 | 1 15470.93171 | 1 10714.56957 | 1 |
| 1 14609.50038 | 1 16915.99038 | 1 14035.19199 | 1 |
| 1 12019.87015 | 1 10708.2975  | 1 11095.19571 | 1 |
| 1 13742.05081 | 1 12157.75572 | 1 12381.35677 | 1 |
| 1 14763.68102 | 1 16036.5286  | 1 10366.56978 | 1 |
| 1 12398.74117 | 1 10859.06851 | 1 14062.7206  | 1 |
| 1 12977.32068 | 1 13646.61922 | 1 14053.17996 | 1 |
| 1 17547.86768 | 1 13767.42431 | 1 16755.67335 | 1 |
| 1 15409.38331 | 1 13244.1876  | 1 11545.80968 | 1 |
| 1 16036.66034 | 1 14698.45093 | 1 13735.37206 | 1 |
| 1 17368.55034 | 1 11527.90066 | 1 15074.75444 | 1 |
| 1 13881.98626 | 1 10562.94038 | 1 13212.57699 | 1 |
| 1 15464.98078 | 1 15265.27756 | 1 14479.40115 | 1 |
| 1 18494.64025 | 1 12579.26713 | 1 11357.57116 | 1 |
| 1 16030.46822 | 1 16995.66174 | 1 12848.81001 | 1 |
| 1 13152.74207 | 1 14251.72871 | 1 11578.88439 | 1 |
| 1 19672.54374 | 1 10455.63243 | 1 12828.19209 | 1 |
| 1 12829.02995 | 1 13221.95026 | 1 17289.02549 | 1 |
| 1 10702.56698 | 1 8790.707565 | 1 15141.5509  | 1 |
| 0 12260.53528 | 1 11213.7321  | 1 15782.52951 | 1 |
| 1 8337.057873 | 1 8018.791072 | 1 16417.24291 | 1 |
| 1 9628.697217 | 1 13611.23671 | 1 16271.92032 | 1 |
| 1 15593.72399 | 1 17141.18489 | 1 10793.93037 | 1 |
| 1 16913.0303  | 1 15380.22466 | 1 12282.38994 | 1 |
| 1 11983.67948 | 1 12684.61952 | 1 13216.22298 | 1 |
| 1 18322.85945 | 1 13276.99079 | 1 13789.92353 | 1 |
| 1 8797.64402  | 1 17427.04974 | 1 13850.92517 | 1 |
| 0 18078.96005 | 1 13269.74242 | 1 16692.02334 | 1 |

# Q1-option2

|   |             |   |             |   |             |   |
|---|-------------|---|-------------|---|-------------|---|
| 1 | 16875.3623  | 0 | 14978.30531 | 1 | 11870.38933 | 1 |
| 1 | 16278.04613 | 1 | 14089.56951 | 1 | 9553.727523 | 1 |
| 1 | 13392.09998 | 1 | 10153.51428 | 1 | 17707.97861 | 1 |
| 1 | 15309.36142 | 1 | 15153.3207  | 1 | 14217.63787 | 1 |
| 1 | 11467.46892 | 1 | 10709.78967 | 1 | 19024.1855  | 1 |
| 1 | 15321.70292 | 1 | 11431.66002 | 1 | 9790.029378 | 1 |
| 1 | 9343.251883 | 1 | 16676.98888 | 1 | 20187.002   | 0 |
| 1 | 14612.60924 | 1 | 15503.88257 | 1 | 15992.24176 | 1 |

Q1-option2

|             |          | 6             |          | 7             |          | 8             |
|-------------|----------|---------------|----------|---------------|----------|---------------|
| Sale price  | Success? | Sale price    | Success? | Sale price    | Success? | Sale price    |
| 15255.65377 |          | 1 16481.34868 |          | 1 13467.21963 |          | 1 10619.34464 |
| 14591.72146 |          | 1 10421.85031 |          | 1 15653.89726 |          | 1 12332.41271 |
| 15235.89939 |          | 1 12941.85671 |          | 1 10391.09257 |          | 1 10331.59474 |
| 13949.96606 |          | 1 7481.793677 |          | 1 18399.2009  |          | 1 20527.14328 |
| 18012.48972 |          | 1 22157.96447 |          | 1 10062.64196 |          | 1 8567.356704 |
| 11097.2028  |          | 1 14942.24038 |          | 1 16316.39478 |          | 1 13896.18889 |
| 14649.83683 |          | 1 9560.845047 |          | 1 14272.141   |          | 1 9383.439602 |
| 15599.94407 |          | 1 9178.502976 |          | 1 10769.37697 |          | 1 13565.37516 |
| 15735.01782 |          | 1 11937.40114 |          | 1 18990.83543 |          | 1 20968.17711 |
| 14350.33939 |          | 1 12670.69785 |          | 1 8746.621848 |          | 1 17330.78496 |
| 12022.71536 |          | 1 15665.46113 |          | 1 12988.83504 |          | 0 12309.2567  |
| 12166.90397 |          | 0 9658.425689 |          | 1 16174.40696 |          | 1 10638.19554 |
| 7550.553307 |          | 1 16174.94136 |          | 1 16252.87107 |          | 1 14160.51501 |
| 17646.69389 |          | 1 14827.97133 |          | 0 11081.32538 |          | 1 11496.86593 |
| 6598.313185 |          | 1 15014.5021  |          | 1 12755.34882 |          | 1 15982.12491 |
| 14528.25454 |          | 1 19021.70209 |          | 1 14214.68794 |          | 1 13297.59171 |
| 9293.464049 |          | 1 12967.19322 |          | 0 7202.592941 |          | 1 18295.98796 |
| 12886.3181  |          | 1 11960.03965 |          | 1 17685.01019 |          | 1 16550.61122 |
| 13408.3169  |          | 1 10408.22189 |          | 1 16914.17481 |          | 1 12510.03024 |
| 12610.52933 |          | 1 15940.48675 |          | 1 9234.742144 |          | 1 11907.26117 |
| 12998.16365 |          | 1 13372.73484 |          | 1 19174.84264 |          | 1 11728.22045 |
| 14189.67984 |          | 1 12452.97955 |          | 1 17295.44763 |          | 1 14114.4366  |
| 15787.36839 |          | 1 17023.59739 |          | 1 14682.9467  |          | 1 12767.89639 |
| 10857.01417 |          | 1 10768.54828 |          | 1 18299.38627 |          | 1 11881.24673 |
| 17287.23165 |          | 1 18512.48045 |          | 1 10322.90755 |          | 1 14114.60054 |
| 13306.49869 |          | 1 16561.46048 |          | 1 12830.5907  |          | 1 12298.08099 |
| 19187.2735  |          | 1 14153.55873 |          | 1 15292.59654 |          | 1 10972.39192 |
| 14714.67433 |          | 1 14247.29052 |          | 1 18818.43478 |          | 1 16305.22118 |
| 16506.67823 |          | 1 12364.87178 |          | 1 10747.10414 |          | 1 9861.060007 |
| 13110.21685 |          | 1 13294.62452 |          | 1 19455.9054  |          | 1 12819.32093 |
| 21328.16585 |          | 1 15993.34316 |          | 1 13085.68098 |          | 1 13816.58484 |
| 11835.59137 |          | 1 9273.849691 |          | 1 8430.938912 |          | 0 13430.3469  |
| 10475.2813  |          | 1 18294.3097  |          | 1 10859.25983 |          | 1 16462.03791 |
| 17976.20502 |          | 1 21421.45995 |          | 1 16933.62906 |          | 1 12992.72973 |
| 11494.29018 |          | 1 13621.59548 |          | 1 12332.91216 |          | 1 15318.20108 |
| 10830.54933 |          | 1 14940.88473 |          | 1 15863.60365 |          | 1 15939.03845 |
| 15063.49347 |          | 1 8586.388941 |          | 1 15520.2612  |          | 0 14912.12639 |
| 9704.621523 |          | 1 12185.84386 |          | 1 14595.61035 |          | 1 14147.03682 |
| 18433.36253 |          | 1 10399.29042 |          | 1 9367.081057 |          | 1 15567.56991 |
| 12637.19358 |          | 1 17516.00178 |          | 1 13148.93052 |          | 1 14553.51112 |
| 14423.59765 |          | 1 17000.98722 |          | 1 14013.0749  |          | 1 17566.90469 |
| 13402.84101 |          | 0 13537.1948  |          | 1 16833.1211  |          | 1 13786.17304 |
| 14596.93888 |          | 1 9705.676479 |          | 1 16585.57963 |          | 1 16842.81134 |
| 15323.03062 |          | 1 13135.14167 |          | 1 16416.12712 |          | 1 14062.80953 |
| 16590.65801 |          | 1 13998.12857 |          | 1 14501.51801 |          | 1 10549.95001 |
| 9390.47776  |          | 1 13648.93559 |          | 1 12028.67777 |          | 1 16950.01891 |



Q1-option2

|             |   |             |   |             |   |             |
|-------------|---|-------------|---|-------------|---|-------------|
| 14512.22757 | 1 | 10922.77009 | 1 | 10860.93476 | 1 | 8860.557719 |
| 8518.231696 | 1 | 16764.59252 | 1 | 10701.76761 | 1 | 16816.32705 |
| 13410.05118 | 1 | 15443.42036 | 1 | 18775.7546  | 1 | 16071.38659 |
| 14316.06825 | 1 | 15244.40648 | 1 | 10544.13085 | 1 | 15450.23414 |
| 15193.00874 | 1 | 16295.03758 | 1 | 22511.02472 | 1 | 16851.62462 |
| 13033.69398 | 1 | 15222.44586 | 1 | 12859.55631 | 1 | 11771.96971 |
| 8816.114605 | 1 | 16735.09177 | 1 | 9100.830194 | 1 | 14338.89833 |
| 12392.8317  | 1 | 16319.93543 | 1 | 14540.77818 | 1 | 17555.5286  |
| 19532.47153 | 0 | 9703.453107 | 1 | 15626.16633 | 1 | 17855.79595 |
| 11195.10116 | 1 | 18007.26449 | 1 | 12262.71812 | 1 | 16709.61728 |
| 17986.57956 | 1 | 18940.57096 | 1 | 17496.51271 | 1 | 13533.18774 |
| 17768.00226 | 1 | 15592.71085 | 1 | 11495.92717 | 1 | 18846.9207  |
| 11875.36985 | 1 | 14756.94219 | 1 | 14011.40714 | 1 | 15864.60097 |
| 11467.93815 | 1 | 11256.32058 | 1 | 14093.93857 | 1 | 8690.337632 |
| 13184.07699 | 1 | 13536.9572  | 1 | 11744.19133 | 0 | 13962.58836 |
| 12286.17647 | 1 | 13452.29515 | 1 | 11549.414   | 1 | 16886.34427 |
| 14020.59495 | 1 | 11942.90205 | 1 | 17533.71516 | 1 | 17346.2176  |
| 12243.22646 | 1 | 14843.79847 | 1 | 13997.57223 | 1 | 10724.68695 |
| 15585.95856 | 1 | 17502.07554 | 1 | 11180.92438 | 1 | 15989.17887 |
| 17765.47864 | 1 | 14375.56813 | 1 | 14783.73956 | 1 | 16343.00497 |
| 13349.83149 | 1 | 17502.7025  | 1 | 11378.82391 | 1 | 9091.351986 |
| 16908.03704 | 1 | 12366.48808 | 1 | 14636.75069 | 1 | 13670.59644 |
| 14189.67984 | 1 | 12452.97955 | 1 | 13796.53653 | 1 | 16062.51033 |
| 12383.94056 | 1 | 9500.683466 | 1 | 15663.72011 | 1 | 18243.06127 |
| 18532.97177 | 1 | 11846.21662 | 1 | 12920.5588  | 1 | 15509.17819 |
| 14768.11363 | 0 | 9619.503049 | 1 | 12033.58991 | 1 | 18539.73904 |
| 9431.206506 | 1 | 15255.52362 | 1 | 15549.92449 | 1 | 14792.20933 |
| 8624.394836 | 1 | 15622.29048 | 1 | 15285.40208 | 1 | 12893.16398 |
| 10180.78562 | 1 | 12300.0952  | 1 | 14888.87119 | 0 | 14834.21983 |
| 17485.20499 | 1 | 10924.2113  | 1 | 16044.21376 | 1 | 9865.31149  |
| 10411.7229  | 1 | 13294.62452 | 1 | 8339.793858 | 1 | 14070.7787  |
| 14160.04929 | 1 | 16694.30507 | 1 | 10773.81762 | 1 | 14891.26916 |
| 9455.840087 | 1 | 14012.05222 | 1 | 11310.35556 | 1 | 12817.10201 |
| 12525.02635 | 1 | 13281.51632 | 1 | 13914.04024 | 0 | 6879.104077 |
| 16566.32898 | 1 | 12835.35399 | 1 | 16479.0854  | 1 | 14372.37779 |
| 16679.12889 | 1 | 17842.01414 | 1 | 16601.67599 | 1 | 18203.77956 |
| 10137.16816 | 1 | 13820.2805  | 1 | 9070.793766 | 0 | 16337.22269 |
| 15012.00115 | 1 | 11790.84452 | 1 | 19232.04375 | 0 | 15534.5188  |
| 15849.09037 | 1 | 12173.30243 | 1 | 14642.11207 | 1 | 14241.70154 |
| 15269.04043 | 1 | 14182.51696 | 1 | 13945.35154 | 1 | 10641.77259 |
| 9303.548024 | 1 | 12148.4468  | 1 | 14128.29033 | 1 | 11826.92572 |
| 10295.08828 | 1 | 19207.82082 | 1 | 17096.76801 | 1 | 11602.77603 |
| 15849.98653 | 1 | 13038.88058 | 1 | 12110.7316  | 1 | 15633.61036 |
| 16306.58299 | 1 | 13711.70577 | 1 | 13180.15064 | 1 | 6376.450381 |
| 14554.00003 | 1 | 9943.816447 | 1 | 11196.15348 | 1 | 11207.15752 |
| 8318.489865 | 1 | 12824.19854 | 1 | 9595.145091 | 1 | 14066.23029 |
| 13848.57898 | 1 | 15552.63678 | 1 | 12028.67777 | 1 | 18178.41134 |
| 14877.36719 | 1 | 12720.62287 | 1 | 15090.32475 | 1 | 13521.53615 |
| 11237.74797 | 1 | 14562.39793 | 1 | 17788.25474 | 1 | 13966.43234 |

Q1-option2

|             |   |             |   |             |   |             |
|-------------|---|-------------|---|-------------|---|-------------|
| 13149.32879 | 1 | 16002.54462 | 1 | 13853.87591 | 1 | 14168.81294 |
| 15391.78871 | 0 | 10655.63526 | 1 | 10373.5515  | 1 | 12962.64723 |
| 15533.97932 | 1 | 12586.886   | 1 | 9438.015677 | 1 | 14112.92102 |
| 14731.39634 | 1 | 14966.95946 | 1 | 13941.66443 | 1 | 16115.31512 |
| 12472.31462 | 1 | 9657.019958 | 1 | 8292.889861 | 1 | 13352.74339 |
| 14608.22846 | 1 | 11180.33778 | 1 | 16072.42951 | 1 | 11589.02239 |
| 16902.06318 | 1 | 15264.73577 | 1 | 11532.24472 | 1 | 13122.57829 |
| 16873.49933 | 1 | 15364.5171  | 1 | 13057.40896 | 1 | 11846.31528 |
| 14652.01265 | 1 | 15187.59803 | 1 | 16113.0621  | 1 | 11908.58471 |
| 7067.528758 | 1 | 13781.91437 | 1 | 17783.60915 | 1 | 14360.45186 |
| 11494.57849 | 0 | 11343.21501 | 1 | 17294.87113 | 1 | 15610.1133  |
| 16147.60089 | 1 | 15720.53215 | 1 | 15641.37841 | 1 | 13874.23679 |
| 14939.35283 | 1 | 12598.94731 | 1 | 14359.4427  | 1 | 18722.78044 |
| 13425.80462 | 0 | 14937.64008 | 1 | 9899.225596 | 1 | 21318.57754 |
| 15188.13071 | 0 | 15846.29381 | 1 | 14961.88763 | 1 | 14368.07615 |
| 16941.4008  | 1 | 16398.50307 | 1 | 18666.35985 | 1 | 14431.62944 |
| 17820.4852  | 1 | 17720.05811 | 0 | 11955.29805 | 1 | 13977.44551 |
| 16035.9357  | 1 | 8402.224819 | 0 | 18712.2636  | 0 | 16370.79681 |
| 13818.25739 | 1 | 12979.09785 | 1 | 11621.2604  | 1 | 9743.879093 |
| 13207.25589 | 1 | 18318.7489  | 1 | 8291.388971 | 1 | 22011.21841 |
| 16900.09852 | 0 | 17721.11738 | 1 | 14396.43514 | 1 | 18715.46882 |
| 16734.54025 | 1 | 14751.46022 | 1 | 11598.84935 | 1 | 10630.30102 |
| 13499.94344 | 1 | 8298.151206 | 1 | 11523.22582 | 1 | 14838.10427 |
| 14118.42063 | 1 | 19029.89675 | 1 | 16488.26704 | 1 | 10454.75834 |
| 15623.5772  | 1 | 16721.88079 | 1 | 17467.93101 | 1 | 17766.44579 |
| 8715.387557 | 1 | 12470.61454 | 1 | 11425.48061 | 1 | 14573.63752 |
| 13135.67287 | 1 | 15465.90747 | 1 | 9804.688304 | 1 | 13511.03544 |
| 13935.55752 | 1 | 14237.5268  | 0 | 12637.28553 | 1 | 9947.414933 |
| 14869.31099 | 1 | 20721.2564  | 0 | 14725.51319 | 1 | 15431.71475 |
| 12703.0619  | 1 | 11650.8857  | 1 | 14444.9938  | 1 | 19163.83611 |
| 14398.47642 | 1 | 16605.9489  | 1 | 13318.08862 | 1 | 19400.99683 |
| 13706.84731 | 1 | 11191.93655 | 1 | 18049.64518 | 1 | 15486.25324 |
| 14739.38938 | 1 | 19238.72313 | 1 | 13566.79766 | 1 | 13498.15233 |
| 15799.40192 | 1 | 14616.20882 | 1 | 16554.47743 | 1 | 14482.75888 |
| 11862.1821  | 1 | 11186.30475 | 1 | 16185.22059 | 1 | 11263.05933 |
| 17365.43942 | 1 | 14897.37729 | 1 | 12267.76669 | 1 | 11507.06707 |
| 15556.51197 | 0 | 12462.37664 | 1 | 18450.58648 | 1 | 14776.92316 |
| 12018.98554 | 1 | 13922.93062 | 1 | 14925.9956  | 1 | 12185.96857 |
| 16253.09622 | 1 | 14138.09679 | 1 | 10111.74455 | 1 | 9479.33456  |
| 12739.21096 | 1 | 14163.00354 | 1 | 12494.8141  | 1 | 14735.44112 |
| 16395.59101 | 1 | 13666.23959 | 1 | 12520.09258 | 1 | 12747.49301 |
| 13818.47226 | 1 | 13458.8806  | 1 | 12421.18878 | 1 | 12995.51157 |
| 11894.66425 | 1 | 9959.381462 | 1 | 16904.30422 | 1 | 18759.89329 |
| 19251.13136 | 1 | 15454.49767 | 1 | 16020.72944 | 1 | 14726.8985  |
| 13494.50075 | 1 | 12080.24103 | 1 | 19057.36217 | 1 | 17463.49844 |
| 15937.97619 | 1 | 15188.37357 | 0 | 15860.36796 | 1 | 17241.1438  |
| 11940.68022 | 1 | 20791.51401 | 1 | 17426.64105 | 1 | 14976.76001 |
| 12661.16581 | 1 | 11496.42096 | 1 | 11546.31338 | 1 | 11321.77723 |
| 14738.95286 | 1 | 11173.41911 | 1 | 12219.85553 | 1 | 14026.30072 |

Q1-option2

|             |   |             |   |             |   |             |
|-------------|---|-------------|---|-------------|---|-------------|
| 17638.42906 | 1 | 16726.55405 | 1 | 13509.54412 | 0 | 7941.387685 |
| 7349.569531 | 1 | 12007.64822 | 1 | 13969.81828 | 0 | 10687.63652 |
| 16760.79354 | 1 | 5969.838863 | 1 | 13428.19004 | 1 | 17872.18317 |
| 15472.75225 | 1 | 12477.32011 | 1 | 13567.2791  | 1 | 14226.02152 |
| 11929.61369 | 1 | 9622.025538 | 1 | 12727.99313 | 1 | 13516.13918 |
| 8707.961509 | 1 | 12485.24215 | 1 | 15467.75169 | 1 | 16277.52279 |
| 17863.19211 | 1 | 14480.3382  | 1 | 12430.60944 | 1 | 14435.17493 |
| 9825.205771 | 1 | 6765.170132 | 1 | 14142.00748 | 1 | 12536.11188 |
| 15299.65793 | 1 | 15076.4065  | 1 | 10392.53556 | 1 | 16906.46044 |
| 16453.32714 | 1 | 12780.84866 | 1 | 8198.401985 | 1 | 14527.69654 |
| 16980.0137  | 1 | 15646.03684 | 1 | 10786.80894 | 1 | 13881.3104  |
| 12205.13936 | 1 | 11621.24974 | 1 | 12621.99842 | 1 | 20261.20331 |
| 10800.87921 | 1 | 10929.94605 | 1 | 17271.31009 | 1 | 18290.27715 |
| 14267.21538 | 1 | 12782.66039 | 1 | 14789.76624 | 1 | 12081.5658  |
| 7506.8274   | 1 | 14336.28887 | 1 | 13729.55318 | 1 | 14105.29321 |
| 11290.08338 | 1 | 9427.743804 | 1 | 4641.547656 | 1 | 17766.91681 |
| 12938.46039 | 0 | 15095.99354 | 1 | 19649.72377 | 1 | 13633.81056 |
| 16650.7081  | 1 | 12322.97659 | 1 | 10098.70497 | 1 | 14862.26783 |
| 15513.42342 | 1 | 10785.09157 | 1 | 16918.16648 | 1 | 8876.621401 |
| 14967.8571  | 1 | 12661.11227 | 1 | 17520.71683 | 1 | 13949.57325 |
| 16204.65311 | 1 | 16543.96134 | 1 | 14726.93398 | 1 | 18245.85835 |
| 10534.44211 | 1 | 13134.76781 | 1 | 14260.59473 | 1 | 10710.10247 |
| 15389.42677 | 1 | 15222.95278 | 1 | 20089.97081 | 1 | 21622.16778 |
| 14601.5207  | 1 | 15642.55722 | 1 | 16846.87495 | 1 | 15020.78415 |
| 14767.25813 | 1 | 9063.496197 | 1 | 19283.36205 | 1 | 16866.2066  |
| 13107.09705 | 1 | 11164.7547  | 1 | 15572.45526 | 1 | 14815.58203 |
| 14344.18616 | 1 | 16133.59247 | 1 | 16132.1163  | 1 | 16527.57226 |
| 18866.79016 | 1 | 14123.48535 | 1 | 16635.84566 | 1 | 15707.7246  |
| 16250.30151 | 1 | 12077.06925 | 1 | 17327.28256 | 1 | 13012.04678 |
| 16167.40874 | 1 | 11429.92089 | 1 | 7918.979376 | 1 | 11514.33398 |
| 16848.51565 | 1 | 12822.42105 | 1 | 13153.06984 | 0 | 18523.70607 |
| 10719.9738  | 1 | 15631.70163 | 1 | 14306.12417 | 1 | 10580.76014 |
| 9247.7769   | 1 | 14058.83137 | 1 | 15885.57457 | 1 | 12159.39175 |
| 12782.7502  | 1 | 14526.5367  | 1 | 16001.04663 | 1 | 16981.15507 |
| 12598.54953 | 1 | 16531.86685 | 1 | 11837.47286 | 1 | 12447.3233  |
| 13305.4448  | 1 | 13092.92803 | 1 | 10407.11051 | 1 | 16567.25419 |
| 15241.34856 | 1 | 14671.19008 | 1 | 14526.06987 | 1 | 11023.16833 |
| 19025.7438  | 1 | 11311.25627 | 1 | 16256.74384 | 1 | 11982.30249 |
| 7771.388437 | 1 | 14422.75337 | 1 | 10554.23657 | 1 | 12383.94648 |
| 17533.33141 | 1 | 13962.39086 | 1 | 14622.27864 | 1 | 14059.17517 |
| 7621.268006 | 1 | 18070.75806 | 1 | 14065.49631 | 0 | 14736.99023 |
| 11667.19272 | 1 | 11891.03321 | 1 | 15648.28513 | 1 | 12476.55691 |
| 9420.026787 | 1 | 12413.4905  | 1 | 15792.12583 | 1 | 13803.52461 |
| 13093.67186 | 1 | 14753.27682 | 1 | 14253.66467 | 1 | 9912.655562 |
| 12955.29393 | 1 | 10128.92299 | 1 | 10624.87886 | 1 | 16152.39543 |
| 23025.68437 | 1 | 11532.28836 | 0 | 11624.69704 | 1 | 15787.347   |
| 17679.83161 | 1 | 10334.8783  | 1 | 15025.54298 | 1 | 16375.82371 |
| 14771.35888 | 1 | 11003.16802 | 1 | 10734.49205 | 1 | 13637.04387 |
| 15612.42991 | 1 | 9685.59389  | 1 | 15973.82575 | 1 | 15923.6743  |

Q1-option2

|             |   |             |   |             |   |             |
|-------------|---|-------------|---|-------------|---|-------------|
| 17529.66849 | 1 | 17785.20111 | 1 | 17463.43833 | 1 | 15495.24094 |
| 8918.139842 | 1 | 13677.61186 | 1 | 16979.58816 | 1 | 10953.01911 |
| 14656.32334 | 1 | 14845.73892 | 1 | 17479.15758 | 0 | 12167.26539 |
| 16844.22785 | 1 | 17490.93128 | 1 | 14974.4563  | 1 | 20482.56199 |
| 12546.45785 | 1 | 13120.53009 | 1 | 12388.68989 | 1 | 21521.87525 |
| 9723.890987 | 1 | 15032.5779  | 1 | 13035.04562 | 1 | 9032.52537  |
| 16363.47715 | 0 | 13839.5329  | 1 | 18149.65406 | 1 | 13279.78253 |
| 11317.25154 | 1 | 15573.40243 | 1 | 11809.94854 | 1 | 12024.21758 |
| 14700.32501 | 1 | 16806.08656 | 0 | 10891.57783 | 1 | 11533.20058 |
| 8366.371764 | 1 | 15935.15143 | 1 | 12039.69203 | 1 | 8986.628489 |
| 15301.96084 | 1 | 11106.40159 | 1 | 14494.0098  | 1 | 12555.90339 |
| 12082.47294 | 1 | 14032.18523 | 1 | 12004.96951 | 1 | 13304.1163  |
| 16893.46374 | 1 | 15897.78903 | 1 | 12645.89275 | 1 | 21535.73749 |
| 8479.159018 | 1 | 14716.33137 | 1 | 12637.21678 | 1 | 19459.64148 |
| 16082.26706 | 0 | 14613.33659 | 1 | 11245.25497 | 1 | 12669.38001 |
| 11773.81488 | 1 | 18071.40369 | 1 | 12529.41038 | 1 | 10378.66447 |
| 15675.23274 | 1 | 18199.64479 | 1 | 13149.72244 | 1 | 11485.36473 |
| 15903.58001 | 1 | 19917.32845 | 1 | 10001.25021 | 1 | 12439.10113 |
| 15998.34139 | 1 | 15810.4245  | 1 | 12744.34894 | 1 | 14733.80396 |
| 12832.65696 | 1 | 6651.111495 | 1 | 11920.64312 | 1 | 9652.436274 |
| 15342.70849 | 1 | 10574.36514 | 1 | 15746.8385  | 1 | 13207.81867 |
| 14434.6719  | 1 | 13234.47675 | 1 | 15301.20299 | 1 | 16715.08175 |
| 16762.25938 | 1 | 13087.14931 | 1 | 15552.96367 | 1 | 13401.40281 |
| 13289.4241  | 1 | 16524.8058  | 1 | 4869.704901 | 0 | 13933.85754 |
| 15126.45503 | 1 | 15515.98742 | 1 | 13219.43894 | 0 | 15219.60741 |
| 14239.79644 | 1 | 15579.38393 | 1 | 14695.44279 | 1 | 13424.94897 |
| 14543.32629 | 1 | 13233.05468 | 1 | 17354.71621 | 1 | 17191.11104 |
| 12621.83235 | 1 | 16475.57669 | 0 | 13932.78537 | 1 | 13570.96636 |
| 15312.96345 | 1 | 12271.9907  | 1 | 15967.89742 | 1 | 15270.63496 |
| 20894.31443 | 1 | 13639.06425 | 1 | 15339.27502 | 1 | 15401.42919 |
| 14559.13483 | 1 | 15404.27097 | 1 | 14900.81594 | 1 | 14004.0863  |
| 16480.04234 | 1 | 14590.32724 | 1 | 12786.17031 | 1 | 15040.19831 |
| 8313.695071 | 0 | 12913.58512 | 1 | 8477.600318 | 1 | 15904.04105 |
| 18913.7117  | 1 | 11094.43797 | 1 | 16591.29072 | 1 | 13292.76068 |
| 13653.19957 | 1 | 18067.85567 | 1 | 12252.74749 | 1 | 11387.84794 |
| 15475.25954 | 1 | 15965.02869 | 1 | 13189.51286 | 1 | 14077.38037 |
| 10635.68337 | 1 | 15098.25522 | 1 | 12779.87211 | 1 | 16135.53071 |
| 18022.47132 | 1 | 7266.896162 | 1 | 17321.74707 | 0 | 13249.99963 |
| 14605.60312 | 1 | 19946.2911  | 1 | 12202.69178 | 1 | 11162.68265 |
| 17089.81432 | 1 | 10552.5597  | 1 | 18455.98026 | 1 | 16380.33041 |
| 12494.54453 | 1 | 14560.76404 | 1 | 15531.86918 | 1 | 8624.968763 |
| 7542.187055 | 1 | 15749.19233 | 1 | 17692.89861 | 1 | 10905.87637 |
| 15720.48499 | 1 | 9039.516743 | 1 | 7596.340309 | 1 | 15383.77817 |
| 11023.82631 | 1 | 19271.51565 | 1 | 11453.73782 | 1 | 8376.404558 |
| 16648.0138  | 1 | 17771.51813 | 1 | 15503.68416 | 0 | 8949.559576 |
| 13835.08862 | 1 | 15339.96326 | 1 | 11712.84658 | 1 | 16032.68173 |
| 16942.82255 | 1 | 12013.81854 | 1 | 16683.40663 | 1 | 17471.06965 |
| 14686.34829 | 1 | 13570.55401 | 1 | 13479.64519 | 1 | 14513.34883 |
| 14803.36939 | 0 | 10663.33651 | 1 | 18886.75773 | 0 | 15344.92785 |

# Q1-option2

|             |               |               |               |
|-------------|---------------|---------------|---------------|
| 14469.85847 | 1 13957.13705 | 1 13796.4421  | 1 21585.19434 |
| 12103.86682 | 1 19893.09214 | 1 16500.88703 | 1 15799.96265 |
| 18988.22506 | 1 8491.73863  | 1 11922.98652 | 1 10469.00036 |
| 11960.34481 | 1 14434.25166 | 1 14986.92063 | 1 16209.57902 |
| 15491.03188 | 1 10265.47405 | 1 9741.070664 | 1 15406.34736 |
| 15369.77935 | 1 9798.769644 | 1 11098.30321 | 1 10404.14161 |
| 13224.79407 | 1 11340.30002 | 1 15645.60782 | 1 12854.59232 |
| 14207.92151 | 1 6373.836562 | 1 15496.5449  | 1 9533.912078 |

Q1-option2

| 9        |             | 10       |             |               |                   |
|----------|-------------|----------|-------------|---------------|-------------------|
| Success? | Sale price  | Success? | Sale price  | Total revenue | Total profit (\$) |
| 1        | 12573.19102 | 1        | 15760.43759 | 66970232.29   | 63720232.29       |
| 1        | 13409.77205 | 1        | 14145.23783 | 59356540.26   | 56106540.26       |
| 0        | 14226.85666 | 1        | 11569.08201 | 54342698.77   | 51092698.77       |
| 0        | 22986.69521 | 1        | 12397.02307 | 64981076.48   | 61731076.48       |
| 1        | 17225.2359  | 1        | 15265.87117 | 70279861.2    | 67029861.2        |
| 1        | 13926.57813 | 1        | 13579.57775 | 71373039.16   | 68123039.16       |
| 1        | 11902.26725 | 1        | 11530.68009 | 54973706.47   | 51723706.47       |
| 1        | 14988.1431  | 1        | 17953.28308 | 69200535.39   | 65950535.39       |
| 1        | 13568.63772 | 1        | 14310.30789 | 66715614.95   | 63465614.95       |
| 1        | 11904.79933 | 1        | 24733.77109 | 66750182.44   | 63500182.44       |
| 1        | 18401.04902 | 1        | 4613.4554   | 56415279.7    | 53165279.7        |
| 1        | 10407.26781 | 1        | 15092.82803 | 65079600.11   | 61829600.11       |
| 1        | 12193.01196 | 1        | 12978.13899 | 66386040.43   | 63136040.43       |
| 1        | 15056.10157 | 1        | 17506.09472 | 63691453.01   | 60441453.01       |
| 1        | 17471.38648 | 1        | 10690.94865 | 72941162.01   | 69691162.01       |
| 0        | 12650.33731 | 1        | 7503.225977 | 54485658.2    | 51235658.2        |
| 1        | 16703.67655 | 1        | 13027.2212  | 55569895.96   | 52319895.96       |
| 1        | 11993.77668 | 1        | 13345.77236 | 64227144.12   | 60977144.12       |
| 1        | 14440.86515 | 1        | 9166.191646 | 57522801.99   | 54272801.99       |
| 1        | 14492.77489 | 1        | 15526.50533 | 70835887.32   | 67585887.32       |
| 1        | 21117.03973 | 1        | 14315.33811 | 69837072.91   | 66587072.91       |
| 1        | 13739.4256  | 1        | 16140.81524 | 69187234.29   | 65937234.29       |
| 1        | 7803.603957 | 1        | 12038.80824 | 65020723.23   | 61770723.23       |
| 1        | 18529.32851 | 1        | 20751.31287 | 82906603.67   | 79656603.67       |
| 1        | 18371.14188 | 1        | 12027.4423  | 73731691.26   | 70481691.26       |
| 1        | 17175.30632 | 1        | 11951.1625  | 69456182.05   | 66206182.05       |
| 1        | 14373.50505 | 1        | 12573.89202 | 72344993.17   | 69094993.17       |
| 1        | 13295.26816 | 1        | 12133.71436 | 68342583.16   | 65092583.16       |
| 1        | 11512.77298 | 1        | 11533.92557 | 66974524.25   | 63724524.25       |
| 1        | 11326.09382 | 1        | 15466.57909 | 67813047.01   | 64563047.01       |
| 1        | 11937.05699 | 1        | 13114.48607 | 73357815.73   | 70107815.73       |
| 1        | 13682.75056 | 1        | 16120.64068 | 49493652.49   | 46243652.49       |
| 1        | 11298.48172 | 1        | 15737.75603 | 64802942.23   | 61552942.23       |
| 1        | 19415.97755 | 1        | 12416.55384 | 82242885.23   | 78992885.23       |
| 1        | 15546.83751 | 1        | 13485.57768 | 60269612.1    | 57019612.1        |
| 1        | 11463.0264  | 1        | 13835.86085 | 69333138.82   | 66083138.82       |
| 1        | 18328.82741 | 1        | 11517.47202 | 62645105.54   | 59395105.54       |
| 1        | 13792.91972 | 1        | 15737.21523 | 69610514.44   | 66360514.44       |
| 1        | 21100.89936 | 1        | 16856.28467 | 68435328.24   | 65185328.24       |
| 0        | 14634.03189 | 1        | 11790.3882  | 68904988.85   | 65654988.85       |
| 1        | 10934.85055 | 1        | 11720.39509 | 62207346.48   | 58957346.48       |
| 1        | 13599.53404 | 1        | 11602.52448 | 63429352.04   | 60179352.04       |
| 1        | 18471.28773 | 1        | 11895.57088 | 63844020.2    | 60594020.2        |
| 1        | 12870.69363 | 1        | 17231.21729 | 72832669.29   | 69582669.29       |
| 1        | 8401.189618 | 1        | 17449.49513 | 73298790.06   | 70048790.06       |
| 1        | 13500.65704 | 1        | 12891.34936 | 62646397.35   | 59396397.35       |

Q1-option2

|               |               |             |             |
|---------------|---------------|-------------|-------------|
| 1 16743.40773 | 1 12479.89561 | 57180926.8  | 53930926.8  |
| 1 9544.911615 | 1 14469.00587 | 67973798.31 | 64723798.31 |
| 1 5782.845491 | 1 15552.45496 | 64933224.5  | 61683224.5  |
| 1 15259.93307 | 1 13808.94841 | 74444536.41 | 71194536.41 |
| 1 13472.77029 | 1 15714.85875 | 84845251.83 | 81595251.83 |
| 1 14078.11989 | 1 18676.45488 | 73734571.64 | 70484571.64 |
| 1 13240.87772 | 1 14071.20835 | 58669188.91 | 55419188.91 |
| 1 9069.321845 | 1 9025.246829 | 65097072.78 | 61847072.78 |
| 1 10685.31756 | 1 10773.05825 | 67102616.09 | 63852616.09 |
| 1 13884.22806 | 1 14437.03441 | 72701126.02 | 69451126.02 |
| 1 11532.66272 | 1 17795.5907  | 74467101.93 | 71217101.93 |
| 1 13593.67972 | 1 17792.04479 | 76343472.58 | 73093472.58 |
| 1 16225.69653 | 1 14547.82075 | 70825008.67 | 67575008.67 |
| 1 16694.0325  | 1 11048.70064 | 66741809.43 | 63491809.43 |
| 1 13929.54865 | 1 11759.92151 | 52688676.72 | 49438676.72 |
| 1 7225.550302 | 1 11613.61799 | 66377608.31 | 63127608.31 |
| 1 13728.329   | 1 14430.25768 | 73724819.13 | 70474819.13 |
| 1 14772.60233 | 0 17445.34839 | 59263974.55 | 56013974.55 |
| 1 7593.168916 | 1 9925.398262 | 65046446.2  | 61796446.2  |
| 1 11317.47486 | 1 11405.54853 | 78168944.27 | 74918944.27 |
| 1 15553.49691 | 1 16226.71225 | 69576093.32 | 66326093.32 |
| 1 11930.75058 | 1 9471.927392 | 49091452.96 | 45841452.96 |
| 1 22986.69521 | 1 12952.76523 | 72271289.68 | 69021289.68 |
| 1 9344.596397 | 1 11203.65401 | 65635683.56 | 62385683.56 |
| 1 14860.96791 | 1 13403.37232 | 64072090.42 | 60822090.42 |
| 1 10951.48715 | 1 12745.134   | 53894351.19 | 50644351.19 |
| 1 13385.38239 | 1 15693.10406 | 68658287.84 | 65408287.84 |
| 1 6350.467391 | 1 11070.44704 | 64106668    | 60856668    |
| 1 15138.59658 | 1 9298.663049 | 55730004.04 | 52480004.04 |
| 1 8917.446904 | 1 13448.76351 | 65959161.43 | 62709161.43 |
| 1 14076.26969 | 1 12041.32529 | 60514763.9  | 57264763.9  |
| 1 17639.31069 | 1 14556.86926 | 72764338.62 | 69514338.62 |
| 1 10527.05325 | 1 15457.3097  | 64298871.69 | 61048871.69 |
| 1 12569.64861 | 1 11665.09211 | 62307089.58 | 59057089.58 |
| 0 13577.46389 | 1 8770.052946 | 67138709.9  | 63888709.9  |
| 1 10449.93605 | 0 13066.04897 | 64554170.95 | 61304170.95 |
| 0 17961.95047 | 1 11646.70833 | 42117698.67 | 38867698.67 |
| 1 12894.90609 | 1 10497.6612  | 59709623.16 | 56459623.16 |
| 1 17780.05704 | 1 10599.35559 | 65394065.22 | 62144065.22 |
| 1 13061.76031 | 1 13010.60908 | 60170594.93 | 56920594.93 |
| 1 17510.19371 | 0 15807.11147 | 61266447.3  | 58016447.3  |
| 1 8490.425591 | 1 15020.78303 | 71380022.69 | 68130022.69 |
| 1 13372.50766 | 1 14250.21177 | 69969806.62 | 66719806.62 |
| 0 13630.92593 | 1 6597.150202 | 59752129.86 | 56502129.86 |
| 1 14554.28063 | 1 14650.40919 | 62438468.43 | 59188468.43 |
| 1 11150.43795 | 1 17462.36299 | 63829448.06 | 60579448.06 |
| 1 18545.11716 | 0 11488.08623 | 65713979.59 | 62463979.59 |
| 0 18708.85549 | 0 14877.63254 | 39140203.64 | 35890203.64 |
| 1 15606.1885  | 1 14333.1723  | 68475016.21 | 65225016.21 |

Q1-option2

|               |               |             |             |
|---------------|---------------|-------------|-------------|
| 1 16506.20443 | 0 12742.15811 | 60467643.17 | 57217643.17 |
| 1 17007.11906 | 1 13412.35859 | 60018832.73 | 56768832.73 |
| 1 12541.2887  | 1 15326.65161 | 55951686.23 | 52701686.23 |
| 1 13340.04254 | 1 8220.253101 | 61197583.83 | 57947583.83 |
| 1 14682.1845  | 1 10157.1478  | 59433689.07 | 56183689.07 |
| 1 10700.29613 | 1 15426.02934 | 58066184.35 | 54816184.35 |
| 1 10394.7566  | 1 11044.51605 | 59876217.98 | 56626217.98 |
| 1 15751.70383 | 1 8934.970755 | 68556580.55 | 65306580.55 |
| 1 8420.985921 | 1 14286.87207 | 62219079.22 | 58969079.22 |
| 1 13313.40206 | 1 12472.68845 | 63767117.37 | 60517117.37 |
| 0 13771.27195 | 1 18871.28971 | 60552901.75 | 57302901.75 |
| 1 11616.87691 | 1 18039.24704 | 72606987.9  | 69356987.9  |
| 1 11933.8146  | 1 14953.73568 | 65273486.48 | 62023486.48 |
| 1 10912.78284 | 1 16471.02079 | 61719202.86 | 58469202.86 |
| 0 11574.58661 | 1 16414.38343 | 64893103.16 | 61643103.16 |
| 1 11400.46029 | 1 6693.086768 | 69672758    | 66422758    |
| 1 12159.54076 | 0 11348.56333 | 62019926.08 | 58769926.08 |
| 1 13115.01179 | 1 9740.35651  | 39745693.76 | 36495693.76 |
| 0 16939.53211 | 1 12120.35232 | 62671488.75 | 59421488.75 |
| 1 13006.71267 | 0 11143.18014 | 65083123.84 | 61833123.84 |
| 1 18517.87698 | 1 17309.77181 | 74531935.33 | 71281935.33 |
| 1 6719.408618 | 1 13660.67842 | 57900616.89 | 54650616.89 |
| 1 13625.30441 | 1 10063.14149 | 66845420.41 | 63595420.41 |
| 1 16667.4497  | 1 9536.792939 | 75227334.54 | 71977334.54 |
| 1 15876.18606 | 1 14373.83836 | 80105898.02 | 76855898.02 |
| 1 12970.00016 | 1 16286.73389 | 61966876.14 | 58716876.14 |
| 1 12698.95651 | 1 14428.24191 | 62390541.59 | 59140541.59 |
| 1 12343.72629 | 1 12994.01898 | 60264928.73 | 57014928.73 |
| 1 17465.81724 | 1 13891.21301 | 62858762.13 | 59608762.13 |
| 1 14665.76138 | 1 12970.96734 | 65127460    | 61877460    |
| 1 12553.39605 | 1 16105.47994 | 79110207.27 | 75860207.27 |
| 1 12164.76552 | 1 13553.80454 | 72544686.46 | 69294686.46 |
| 1 14033.07189 | 1 16021.22265 | 75637856.47 | 72387856.47 |
| 1 14082.3562  | 1 16649.49383 | 70567748.7  | 67317748.7  |
| 1 10284.80575 | 1 17682.87104 | 60048343.52 | 56798343.52 |
| 1 13210.04961 | 1 11799.57928 | 59500191.81 | 56250191.81 |
| 0 14160.24448 | 1 17493.26499 | 58708148.88 | 55458148.88 |
| 1 17411.33664 | 1 13144.7672  | 63219429.5  | 59969429.5  |
| 1 18765.77617 | 1 12753.91015 | 71072732.37 | 67822732.37 |
| 1 10628.04623 | 1 13950.83911 | 69829376.48 | 66579376.48 |
| 1 10114.34771 | 1 11232.87952 | 72417517.75 | 69167517.75 |
| 1 12985.02864 | 1 12824.31281 | 62146491.62 | 58896491.62 |
| 1 11210.82678 | 1 9912.732049 | 73557221.41 | 70307221.41 |
| 1 16029.99416 | 1 14570.90984 | 63672860.01 | 60422860.01 |
| 1 15344.75324 | 1 14396.77901 | 71872145.14 | 68622145.14 |
| 1 14413.9293  | 1 12932.89994 | 61556388.03 | 58306388.03 |
| 1 9775.203395 | 1 16291.87897 | 72739135.23 | 69489135.23 |
| 1 15214.4828  | 1 18516.58793 | 69575507.13 | 66325507.13 |
| 1 18812.68432 | 0 10744.17823 | 65912985.41 | 62662985.41 |



Q1-option2

|               |               |             |             |
|---------------|---------------|-------------|-------------|
| 1 19138.12227 | 1 15835.61205 | 69406113.16 | 66156113.16 |
| 1 11740.33901 | 1 22014.7876  | 56303398.78 | 53053398.78 |
| 1 15948.26319 | 1 11423.08379 | 68615861.39 | 65365861.39 |
| 1 10398.4858  | 1 13914.15427 | 70433339.32 | 67183339.32 |
| 1 12969.81041 | 1 11351.63303 | 60081135.56 | 56831135.56 |
| 1 11039.48164 | 1 14183.76564 | 70560682.49 | 67310682.49 |
| 0 14380.27707 | 1 9862.635069 | 54140803.77 | 50890803.77 |
| 1 9674.910789 | 1 19921.31033 | 67921389.95 | 64671389.95 |
| 1 16367.93519 | 1 14195.69296 | 69672767.94 | 66422767.94 |
| 1 17045.96093 | 1 11298.94359 | 62916085.16 | 59666085.16 |
| 1 12243.82713 | 1 13167.90753 | 62547624.33 | 59297624.33 |
| 1 20805.60735 | 1 9843.118767 | 76286047.39 | 73036047.39 |
| 1 13951.23219 | 0 17341.22578 | 61252510.72 | 58002510.72 |
| 1 17817.92273 | 1 16850.64517 | 62034721.25 | 58784721.25 |
| 1 19829.38048 | 1 10003.88528 | 65340534.56 | 62090534.56 |
| 1 14239.44752 | 1 15052.33074 | 67193083.51 | 63943083.51 |
| 1 12071.66686 | 1 16355.49138 | 57708096.29 | 54458096.29 |
| 1 15753.8573  | 1 11898.91598 | 68347955.12 | 65097955.12 |
| 1 17013.86119 | 1 11956.64988 | 70641134.36 | 67391134.36 |
| 1 14490.21973 | 1 12112.57241 | 74420245.39 | 71170245.39 |
| 1 9917.523781 | 1 20619.42411 | 76670214.54 | 73420214.54 |
| 1 9040.173331 | 1 15396.31693 | 58543933.03 | 55293933.03 |
| 1 20562.54483 | 1 13232.3911  | 85204471.99 | 81954471.99 |
| 1 11028.10988 | 1 11182.05379 | 70499152.05 | 67249152.05 |
| 1 17175.5556  | 1 13778.38847 | 80121136.48 | 76871136.48 |
| 1 14724.66908 | 1 13509.17129 | 72075848.63 | 68825848.63 |
| 0 8364.505775 | 1 11826.53511 | 68439723.42 | 65189723.42 |
| 1 16136.14147 | 1 16590.90837 | 74530478.58 | 71280478.58 |
| 1 14412.01276 | 1 18858.12998 | 70894487.14 | 67644487.14 |
| 1 15831.504   | 1 15337.07963 | 56202232.05 | 52952232.05 |
| 1 12842.44803 | 1 17829.55903 | 70805045.78 | 67555045.78 |
| 1 16448.1494  | 1 17806.69432 | 76106934.54 | 72856934.54 |
| 1 15344.04563 | 1 13311.01757 | 67029238.06 | 63779238.06 |
| 1 13811.75638 | 1 11558.58284 | 70516392.82 | 67266392.82 |
| 1 15766.19705 | 1 14280.93204 | 63697811.78 | 60447811.78 |
| 1 14948.11855 | 1 15974.70426 | 61593250.12 | 58343250.12 |
| 1 12837.61202 | 1 15203.84158 | 68932688.65 | 65682688.65 |
| 1 12748.69764 | 1 11667.06743 | 69607168.13 | 66357168.13 |
| 1 11256.05413 | 1 16082.53652 | 62022477.96 | 58772477.96 |
| 1 12633.49658 | 1 10696.34374 | 75620758.22 | 72370758.22 |
| 1 17328.34763 | 1 11622.77636 | 58699048.42 | 55449048.42 |
| 1 10281.73331 | 1 13348.64073 | 59889454.59 | 56639454.59 |
| 1 12021.41516 | 1 10855.76249 | 63353364.32 | 60103364.32 |
| 1 10069.81434 | 1 15709.65684 | 63451915.19 | 60201915.19 |
| 1 16824.95233 | 1 11979.433   | 71099850.55 | 67849850.55 |
| 1 15459.34016 | 1 12923.97567 | 67052958.88 | 63802958.88 |
| 1 14421.39477 | 1 12518.18525 | 69420022.17 | 66170022.17 |
| 0 9706.261406 | 1 7638.47555  | 57721193.7  | 54471193.7  |
| 1 13179.97938 | 1 10771.9835  | 68732676.17 | 65482676.17 |

Q1-option2

|               |               |             |             |
|---------------|---------------|-------------|-------------|
| 1 16511.46118 | 1 12193.29104 | 75843479.7  | 72593479.7  |
| 1 15035.47992 | 1 10028.71117 | 66542629.77 | 63292629.77 |
| 0 18105.47878 | 1 13196.90603 | 58931924.08 | 55681924.08 |
| 1 10018.8082  | 1 14755.0468  | 78487132.75 | 75237132.75 |
| 1 9913.580673 | 1 14004.50325 | 66119876.05 | 62869876.05 |
| 1 13967.43044 | 1 16155.17157 | 67605964.5  | 64355964.5  |
| 1 13806.43695 | 1 14711.77238 | 64623905.93 | 61373905.93 |
| 1 11014.5002  | 1 10298.52657 | 63460853.2  | 60210853.2  |
| 1 10132.28021 | 1 10499.97757 | 60859944.54 | 57609944.54 |
| 1 12217.92462 | 1 11768.57069 | 58945073.11 | 55695073.11 |
| 1 13133.33421 | 1 17715.64277 | 65381662.36 | 62131662.36 |
| 1 17084.94038 | 1 14353.37715 | 58762409.85 | 55512409.85 |
| 1 17567.29455 | 1 10995.27345 | 70710883.32 | 67460883.32 |
| 1 15900.45885 | 1 12816.95345 | 68824240.46 | 65574240.46 |
| 1 15021.62387 | 1 11685.89484 | 65462804.6  | 62212804.6  |
| 0 14616.91375 | 1 14842.35301 | 64058328.46 | 60808328.46 |
| 1 15652.82944 | 1 8653.728943 | 60631168.66 | 57381168.66 |
| 1 11729.11737 | 1 11166.88214 | 64951777.02 | 61701777.02 |
| 1 13127.04586 | 0 14829.47373 | 66265130.37 | 63015130.37 |
| 1 9888.971954 | 1 14326.57704 | 63982309.69 | 60732309.69 |
| 1 12712.69194 | 1 13547.47649 | 69354748.81 | 66104748.81 |
| 1 14638.5175  | 1 15264.29567 | 72542863.4  | 69292863.4  |
| 1 13770.2651  | 1 16833.76679 | 76109547.24 | 72859547.24 |
| 1 16394.81653 | 1 15371.99845 | 59395366.46 | 56145366.46 |
| 1 13061.50386 | 1 11608.84909 | 53406698.82 | 50156698.82 |
| 1 16748.96254 | 1 15290.61454 | 73792858.97 | 70542858.97 |
| 1 14899.10001 | 1 13550.87054 | 73838501.12 | 70588501.12 |
| 1 15224.39451 | 1 14054.90826 | 64460016.43 | 61210016.43 |
| 1 16232.14809 | 1 12599.40849 | 75122112.98 | 71872112.98 |
| 1 13944.1909  | 1 14716.8543  | 74367984.03 | 71117984.03 |
| 1 17198.61364 | 1 14715.72171 | 74789671.42 | 71539671.42 |
| 0 16486.27462 | 1 15465.04366 | 66651581.1  | 63401581.1  |
| 1 7330.976709 | 1 15331.874   | 55102890.85 | 51852890.85 |
| 1 13925.28085 | 1 14204.88417 | 74829153.95 | 71579153.95 |
| 1 14610.3558  | 1 13564.92963 | 67264548.55 | 64014548.55 |
| 1 17253.27238 | 1 15396.08075 | 76833205.88 | 73583205.88 |
| 1 14631.90358 | 1 11904.20717 | 60084403.66 | 56834403.66 |
| 0 15581.58663 | 0 16070.18869 | 52480720.12 | 49230720.12 |
| 1 17385.87075 | 1 13155.5486  | 73540348.23 | 70290348.23 |
| 1 17489.22267 | 1 11517.27403 | 70693842.93 | 67443842.93 |
| 0 15228.00143 | 1 13714.87222 | 51885567.17 | 48635567.17 |
| 1 22055.46538 | 1 17378.51931 | 69844248.01 | 66594248.01 |
| 1 13386.18448 | 1 12809.38033 | 65121217.37 | 61871217.37 |
| 1 18367.43757 | 1 11936.24673 | 67642237.97 | 64392237.97 |
| 1 12828.52026 | 0 20762.60648 | 53663690.63 | 50413690.63 |
| 1 15942.35968 | 1 10277.01812 | 69229569.77 | 65979569.77 |
| 1 20832.41134 | 1 17006.72336 | 76912959.65 | 73662959.65 |
| 1 15189.41496 | 1 12190.97868 | 69006105.46 | 65756105.46 |
| 1 13997.63225 | 1 11793.97158 | 53657417.45 | 50407417.45 |

# Q1-option2

|               |                                       |
|---------------|---------------------------------------|
| 1 16886.15095 | 1 18425.96776 70800485.58 67550485.58 |
| 1 12730.69094 | 0 16152.28361 63980953.78 60730953.78 |
| 1 15496.75191 | 1 10201.22485 63102284.82 59852284.82 |
| 1 14123.67743 | 1 17252.88713 75417456.59 72167456.59 |
| 1 15993.08683 | 1 9408.804011 66016047.32 62766047.32 |
| 1 12966.69857 | 1 14034.32354 62293377.2 59043377.2   |
| 1 5336.380117 | 1 14966.59 60934722.72 57684722.72    |
| 1 15562.19607 | 1 17535.80452 68661530.97 65411530.97 |