



**Congratulations! You passed!**

TO PASS 80% or higher

Keep Learning

GRADE  
90%

## Week 5 Final Assignment

LATEST SUBMISSION GRADE

90%

1. The following file describes the situation faced by a landscaping company, 'Landscaping Solutions'.

1 / 1 point

C3 W5 Final Assessment.xlsx

If there is great weather, the company takes the following hours to complete a driveway, backyard, front yard, back verandah, and front porch: 20, 30, 25, 25, and 20 hours respectively.

Good weather increases all times by a factor of 1.1.

Bad weather increases all times by a factor of 1.25.

Stormy weather increases all times by a factor of 1.5.

A natural disaster increases all times by a factor of 2.0

Great weather, good weather, bad weather, stormy weather, and a natural disaster have the following probabilities of occurrence: 0.6, 0.25, 0.1, 0.04, and 0.01 respectively.

All these probabilities (weightings) sum to 1.

Use **SUMPRODUCT** to calculate the estimated hours of work to complete the landscaping.

Please answer using the format ###.##.



Correct

2. The labourers hourly wage is \$30 an hour. In **B15**, calculate the estimated wage cost, without bonuses, given the estimated hours of work. What is the estimated wage cost? Do not include a currency symbol.

1 / 1 point



Correct

3. In **A15:B22**, create a Data Table that calculates the estimated wage cost for wage rates from \$24 an hour to \$36 an hour in increments of \$2 an hour.

1 / 1 point

What is the sum of all the estimated wages in your data table (**B16:B22**)? Do not include a currency symbol.



Correct

4. In **A26**, calculate the estimated wage cost with a bonus rate of 10%. In **A26:G34**, create a Data Table that calculates the estimated wage cost for wage rates from \$24 an hour to \$38 an hour in increments of \$2 an hour, including bonuses for the workers ranging from 5% to 10% in increments of 1%.

1 / 1 point

What is the sum of all the estimated wages in your data table (**B27:G34**)? Do not include a currency symbol.



Correct

5. It has been estimated the company's revenues per week can be estimated by the equation **revenue = (240 - 30Q)\*1000Q** where Q is the number of gardens attended to per week. In **B39**, calculate the total revenue if the quantity is 1. What is the total revenue? Do not include a currency symbol.

1 / 1 point



Correct

6. It has been estimated the company's costs per week can be estimated by the equation **cost = (120 + 8Q)\*1000** where Q is the number of gardens attended to per week. In **B40**, calculate the total cost if the quantity is 1. What is the total cost? Do not include a currency symbol.

1 / 1 point

✓ Correct

7. What is the total profit if the quantity is 1?

1 / 1 point

✓ Correct

8. Use Solver to calculate the quantity that maximises the profit per week. Use the format ###.

1 / 1 point

✓ Correct

9. Use **Scenario Manager** to save two alternate scenarios for Q = 3 (Less Gardens) and Q = 4 (More Gardens), and display the **Scenario Summary**.

0 / 1 point

Which screenshot most closely resembles what you see?

! Incorrect

10. Use Goal Seek to calculate: What is the quantity required to generate a profit of \$300,000 per week? Use the format ###.

1 / 1 point

✓ Correct