Task Title: Calculate Flower Bed Materials and Cost

OALCF Cover Sheet – Practitioner Copy

Learner Name: _____

Date Started: _____

Date Completed: _____

Successful Completion: Yes ☐   No ☐

Goal Path: Employment ☐   Apprenticeship ☐

Secondary School ☐   Post Secondary ☐   Independence ☐

Task Description: Calculate materials and costs for creating a flower bed.

Main Competency/Task Group/Level Indicator:

- Find and Use Information/Interpret documents/A2.1
- Understand and Use Numbers/Manage money/C1.2
- Understand and Use Numbers/Use Measures/C3.3

Materials Required:

- Pen/pencil and paper and/or digital device
- Calculator or digital device with calculator function

Learner Information

Workers at a Garden Centre help people plan their gardens. This includes helping them choose the appropriate plants, calculating how much soil or mulch they will need, determining how many plants are needed in a certain area, and calculating the final cost.

Work Sheet

Task 1: A customer wants to make a flower bed at the back of her house. The flower bed will measure 4.8m by 8.4m.

a) Calculate the area of the flower bed.

Answer:

b) Calculate the number of full bags of mulch required to cover the bed. Each bag covers 3.5m^2.

Answer:

c) Calculate the cost of the mulch the customer will be purchasing. Each bag of mulch costs $7.00. Be sure to include HST (13%).

Answer:

d) Calculate the amount of top soil needed to spread 10cm deep on the whole bed.

Answer:

e) How many bags of topsoil will the customer need to buy if each bag contains 0.35 m^3?

Answer:

f) Calculate the total cost of the topsoil. Each bag of topsoil costs $4.79. Be sure to include HST (13%).

Answer:

_____

Task 2: The customer purchases the following plants for the flower bed:

- **Impatiens 3 per meter along the inner edge of the flower bed.**
  Impatiens can be bought in flats of 9 for $5.99.
- **Hostas - 10 for $2.79 each**
- **Geraniums - 12 for $2.39 each**
- **Rose Bushes - 3 at $12.99 and one at $24.99**
- **Shrubs - 2 at $25.99 and one at $44.99**

Calculate the total cost of the plants. Be sure to include HST (13%).

Answer:

_____

Task 3: Calculate the total cost of materials for the garden. Include a delivery charge of $50.00. There is no HST charge on deliveries.

Answer:

_____

Answers

Task 1: A customer wants to make a flower bed in the back of her house. The flower bed will measure 4.8m by 8.4m.

a) Calculate the area of the flower bed.

Answer: 40.32 m²

b) Calculate the number of full bags of mulch required to cover the bed. Each bag covers 3.5m².

Answer: 40.32 ÷ 3.5 = 11.52. You will need 12 bags of mulch.

c) Calculate the cost of the mulch you will be purchasing. Each bag of mulch costs $7.00. Be sure to include HST (13%).

Answer: 12 bags x $7.00 = $84.00

HST: $84.00 x .13 = $10.92

Total: $84.00 + $10.92 = $94.92

d) Calculate the amount of top soil needed to spread 10cm deep on the whole bed.

Answer: 4.8m x 8.4 m x .1 m = 4.032 m³

e) How many bags of topsoil will she need to buy if each bag contains 0.35 m³?

Answer: 4.032 ÷ 0.35 = 11.52 (12 bags)

f) Calculate the total cost of the topsoil. Each bag of topsoil costs $4.79. Be sure to include HST (13%).

Answer: 12 x $4.79 = $57.48

HST: $57.48 x .13 = $7.47

Total: $57.48 + $7.47 = $64.95

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Task 2: The customer purchases the following plants for the flower bed:

- **Impatiens 3 per meter along the inner edge of the flower bed.**
  Impatiens can be bought in flats of 9 for $5.99.
- **Hostas - 10 for $2.79 each**
- **Geraniums - 12 for $2.39 each**
- **Rose Bushes - 3 at $12.99 and one at $24.99**
- **Shrubs - 2 at $25.99 and one at $44.99**

Calculate the total cost of the plants. Be sure to include HST (13%).

Impatiens:
Perimeter of flower bed: 8.4 + 8.4 + 4.8 + 4.8 = 26.4m
26.4÷3 = 8.8 (9 flats)
Cost: 9 flats x $5.99 = $53.91

Hostas: 10 x $2.79 = $27.90

Geraniums: 12 x $2.39 = $28.68

Rose Bushes: 3 x $12.99 = $38.97 + $24.99 = $63.96

Shrubs: 2 x $25.99 = $51.98 + $44.99 = $96.97

Total cost of plants:

$53.91 + $27.90 + $28.68 + $63.96 + $96.97 = $271.42

$271.42 x 0.13 = $35.28 HST

Total: $271.42 + $35.28 = $306.70

Task 3: Calculate the total cost of materials for the garden. Include a delivery charge of $50.00. There is no HST charge on deliveries.

Answer: $94.92 (mulch) +$64.95 (topsoil) + $306.70 (flowers) + $50.00 (delivery) = $516.57 Total

Performance Descriptors

Levels	Performance Descriptors	Needs Work	Completes task with support from practitioner	Completes task independently
A2.1	scans to locate specific details			
	interprets brief text and common symbols			
	locates specific details in simple documents, such as labels and signs			
C1.2	calculates using numbers expressed as whole numbers, fractions, decimals, percentages and integers			
	interprets and applies rates (e.g. $/kg, $/1)			
	chooses and performs required operation(s); may make inferences to identify required operation(s)			
	selects appropriate steps to reach solutions			
	represents costs and rates using monetary symbols, decimals and percentages			
	interprets, represents and converts amounts			

Levels	Performance Descriptors	Needs Work	Completes task with support from practitioner	Completes task independently
	using whole numbers, decimals, percentages, ratios and simple, common fractions (e.g. ½, ¼)			
	uses strategies to check accuracy (e.g. estimating, using a calculator, repeating a calculation, using the reverse operation)			
C3.3	calculates using numbers expressed as whole numbers, fractions, decimals, percentages and integers			
	understands and uses formulas for finding the perimeter, area and volume of non-rectangular, composite shapes			
	manages unfamiliar elements (e.g. context, content) to complete tasks			
	makes estimates involving many factors where precision is required			
	chooses and performs required operations; makes inferences to			

Levels	Performance Descriptors	Needs Work	Completes task with support from practitioner	Completes task independently
	identify required operations			
	selects appropriate steps to solutions from among options			
	interprets, represents and converts measures using whole numbers, decimals, percentages, ratios and fractions			
	uses strategies to check accuracy (e.g. estimating, using a calculator, repeating a calculation, using the reverse operation)			

This task: Was successfully completed ☐ Needs to be tried again ☐

Learner Comments:

Instructor (print):   Learner (print):

_____   _____

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