

**Task Title: Measurement of an L-Shaped Room**

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:** The learner will calculate the materials needed to renovate a “L” shaped living and dining room.

**Main Competency/Task Group/Level Indicator:**

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

**Materials Required:**

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

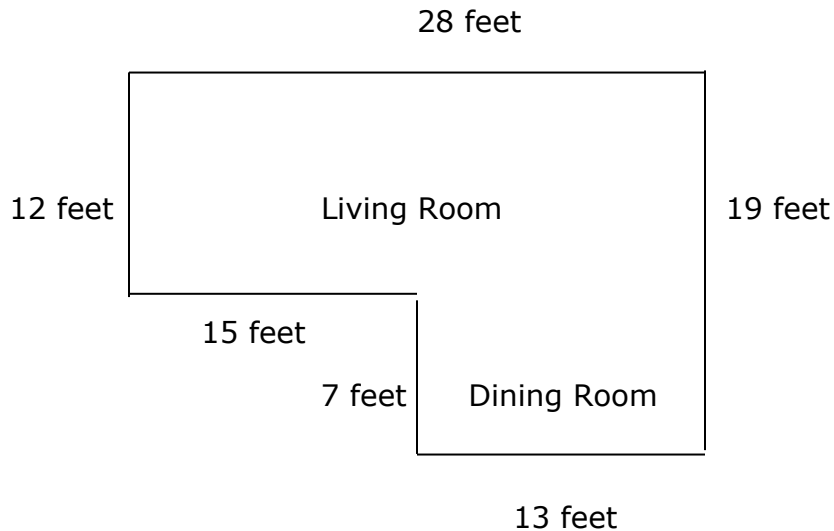
## Learner Information

People often need to calculate the amounts of materials they will need to paint a room or install new flooring and baseboards. They use this information to determine total costs for a renovation or interior design project.

People who work in trades (e.g. construction, HVAC, etc.) calculate sizes of rooms to determine how much supplies will cost so they can give correct estimates and purchase the correct amount of materials for a job.

## Work Sheet

**Task 1: You want to replace baseboards and paint an 'L' shaped living and dining room. Look at the diagram of the room. The walls are 9 feet high.**



**Calculate the perimeter of the entire "L" shaped to determine the total length of the baseboards. Write down the total baseboard length.**

Answer:

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**Task 2: Calculate the total cost to purchase new baseboards. Baseboards cost \$3.99 per foot (there is no tax). Write down the cost.**

Answer:

**Task 3: Calculate the surface area of the walls of the entire room and write down the surface area.**

Answer:

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**Task 4: You want to apply two coats of paint on the walls. A gallon of paint covers 300 square feet of wall space. How many cans of paint will you need to purchase?**

Answer:

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**Task 5: You choose paint for the living room and dining room that costs \$26.25 per gallon. Calculate the total cost of the paint (there is no tax).**

Answer:

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**Task 6: What is the area of the floor?**

Answer:

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**Task 7: You want to put laminate flooring in the entire room. Laminate costs \$3.00 per square foot (there is no tax). How much will it cost?**

Answer:

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**Task 8: You want to compare the cost of laminate flooring with the cost of hardwood flooring. Hardwood costs \$8.00 per square foot (there is no tax). How much will it cost?**

Answer:

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**Task 9: How much money will you save if you choose laminate instead of hardwood flooring?**

Answer:

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## Answers

**Task 1: You want to replace baseboards and paint an 'L' shaped living and dining room. Look at the diagram of the room. The walls are 9 feet high.**

**Calculate the perimeter of the entire "L" shaped to determine the total length of the baseboards. Write down the total baseboard length.**

Answer: 94 feet

**Task 2: Calculate the total cost to purchase new baseboards. Baseboards cost \$3.99 per foot (there is no tax). Write down the cost.**

Answer: 94 feet x \$3.99 = \$375.06

**Task 3: Calculate the surface area of the walls of the entire room and write down the surface area.**

Answer:

Area of living room walls  $(28 + 12 + 12 + 15) \times 9 = 67 \times 9 = 603$  sq feet

Area of dining room walls  $(7 + 13 + 7) \times 9 = 27 \times 9 = 243$  sq feet

$603 + 243 = 846$  square feet OR

Perimeter x wall height = 94 feet x 9 feet = 846 square feet

**Task 4: You want to apply two coats of paint on the walls. A gallon of paint covers 300 square feet of wall space. How many cans of paint will you need to purchase?**

Answer:

Living room:  $603 \times 2 = 1206 / 300 = 4$  gallons

Dining room:  $243 \times 2 = 486 / 300 = 2$  gallons

Total required = 6 gallons OR

Surface area x 2 =  $846 \times 2 = 1,692$  square feet divided by 300 = 5.64 gallons, rounded up to 6 gallons.

**Task 5: You choose paint for the living room and dining room that costs \$26.25 per gallon. Calculate the total cost of the paint (there is no tax).**

Answer: 6 gallons x \$26.25 = \$157.50

**Task 6: What is the area of the floor?**

Answer:

Dining room floor (13 x 7) + Living room floor (28 x 12) =

91 sq feet + 336 sq ft = 427 sq ft total

**Task 7: You want to put laminate flooring in the entire room. Laminate costs \$3.00 per square foot (there is no tax). How much will it cost?**

Answer: 427 sq ft x \$3.00 = \$1,281.00

**Task 8: You want to compare the cost of laminate flooring with the cost of hardwood flooring. Hardwood costs \$8.00 per square foot (there is no tax). How much will it cost?**

Answer: 427 sq ft x \$8.00 = \$3,416.00

**Task 9: How much money will you save if you choose laminate instead of hardwood flooring?**

Answer: \$3,416 - \$1,281 = \$2,135 saved if you choose laminate instead of hardwood

### Performance Descriptors

Levels	Performance Descriptors	Needs Work	Completes task with support from practitioner	Completes task independently
A2.2	uses layout to locate information			
	locates information in simple graphs and maps			
	makes low-level inferences			
C1.3	calculates using numbers expressed as whole numbers, fractions, decimals, percentages and integers			
	chooses and performs required operations; makes inferences to identify operations			
	finds, integrates and analyzes numerical information			
	uses strategies to check accuracy			
C3.2	calculates using numbers expressed as whole numbers, fractions, decimals, percentages and integers			



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	makes estimates			
	interprets and represents area and volume using symbols and abbreviations (e.g. m <sup>3</sup> )			
	understands and uses formulas for finding the perimeter, area and volume of simple common shapes			
	chooses and performs required operation(s); may make inferences to identify required operation(s)			
	selects appropriate steps to solutions			
	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

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Learner Comments:

Instructor (print):

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Learner (print):

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