Task-based Activity Cover Sheet

Task Title: Calculate the area of an irregular room to see if furniture will fit

Learner Name:
Date Started: **Date Completed:**
Successful Completion: Yes___   No___
Goal Path: Employment__ Apprenticeship___ Secondary School__ Post Secondary ___ Independence✓
Task Description: The learner will use a floor plan of an irregular room to determine if specific pieces of furniture will fit.

Competency:	**Task Group(s):**
C: Understand and Use Numbers	C3: Use measures

Level Indicators: C3.3:   Use measures to make multi-step calculations
Performance Descriptors: See chart or click here
Skill Building Activities: See last page or click here
Materials Required: • attached room diagram • ruler • pencil • calculator

ESKARGO:
Number Sense and Computation
- Evaluates expressions containing fractions, decimals, percents and ratios, using the correct order of operations
- Selects appropriate steps to reach a solution
- Solves multi-step numerical and word problems involving fractions, decimals, percents and ratios

Measures
- Understands and uses ratio and proportion
- Interprets and represents area and volume using symbols and abbreviations (e.g., m³)
- Understands and uses formulas for finding the perimeter, area, and volume of simple, common shapes

Attitudes:
Practitioner,
We encourage you to talk with the learner about attitudes required to complete this task set. The context of the task has to be considered when identifying attitudes. With your learner, please check one of the following:

□ Attitude is not important □ Attitude is somewhat important □ Attitude is very important

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Learner Information and Tasks:

Floor plans are often used to determine where to place furniture in a room. Look at the bedroom floor plan.

- In the floor plan each small square represents 1 foot squared (1 foot x 1 foot x 1 foot x 1 foot)
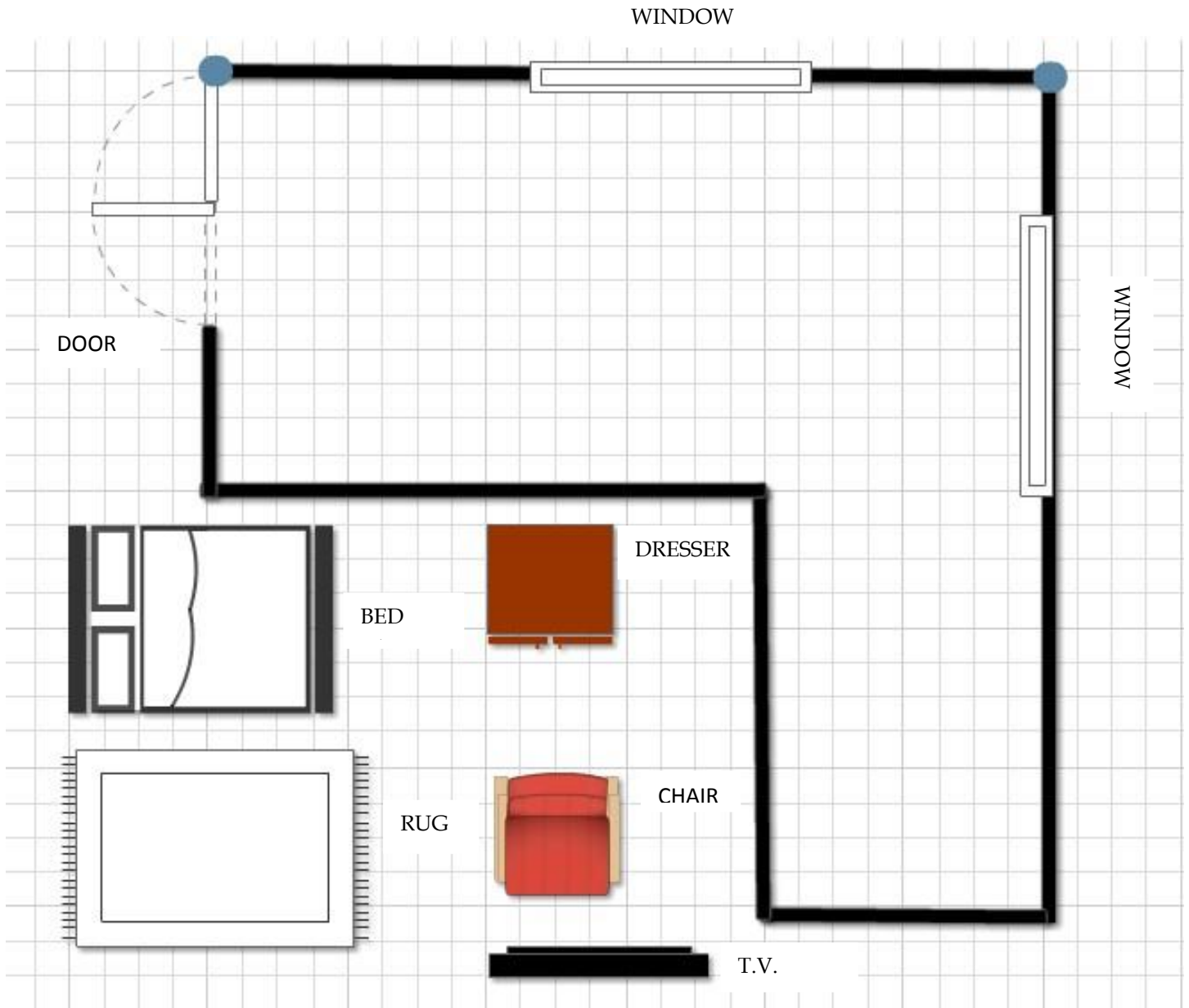
Task 1:   Calculate the perimeter (in feet) of the bedroom.

Task 2:   Calculate the total area (in feet) of the bedroom.

Task 3:   Calculate the total approximate amount of the room (in feet) taken up by windows.

Task 4:   Use the floor plan below and record the placement you've decided on for each piece of furniture shown.

BEDROOM FLOOR PLAN

WINDOW

WINDOW

DOOR

DRESSER

BED

RUG

CHAIR

T.V.

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Answer Key

Task 1:   **96 feet**

24+24+8+12+16+12

Task 2:   **384 feet squared**

12x24 = 288

12x8= 96

288+96= 384

Task 3:   **16 feet**

8+8= 16

Task 4:   Answers will vary but will reflect that the learner understands that the size of the furniture is represented by the floor plan grid

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Performance Descriptors	Needs Work	Completes task with support from practitioner	Completes task independently
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 identify required operations			
• selects appropriate steps to solutions from among options			
• identifies a variety of ways to complete tasks			
• represents measures using whole numbers			
• 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 Signature**

Skill Building Activities

Links to Online Resources:

http://www.gcflearnfree.org/featured/fractions
Basic understanding of fractions, working with common denominators, reducing, improper fractions.

https://www.khanacademy.org/math/pre-algebra/measurement/perimeter/v/introduction-to-perimeter
Perimeter

https://www.khanacademy.org/math/pre-algebra/measurement/rectangle-area-perimeter-word-pr/v/length-and-width-from-perimeter-and-area
Rectangular Area and word problems

https://www.khanacademy.org/math/pre-algebra/measurement/area-basics/v/area-of-rectangles-and-the-distributive-property

https://www.khanacademy.org/math/pre-algebra/measurement/area-basics/v/introduction-to-area-and-unit-squares

https://www.mathtv.com/
Geometry- Area and Perimeter

LearningHUB online courses available:

- **Math, Independent Study (Assigned by practitioner after assessment)**
  - o Fractions Asg. #1 & 2
  - o Decimals Assignment
  - o Measurement Assignment
  - o Geometry Plane Figures Asg. #1

- **Live Classes (SABA)** –Math Stories, Fractions A, B & C, Decimals A & B, Geometry B Part 1,

*To access LearningHUB courses, learners must register for the LearningHUB e-Channel program by completing the registration form on their website and completing the course selection (page 2 of the registration form): https://www.learninghub.ca/get_registered.aspx

*To Access LearningHUB Course Catalogue:
http://www.learninghub.ca/Files/PDF-files/HUBcoursecatalogue,%20December%2023,%202014%20revision.pdf