

Name: \_\_\_\_\_

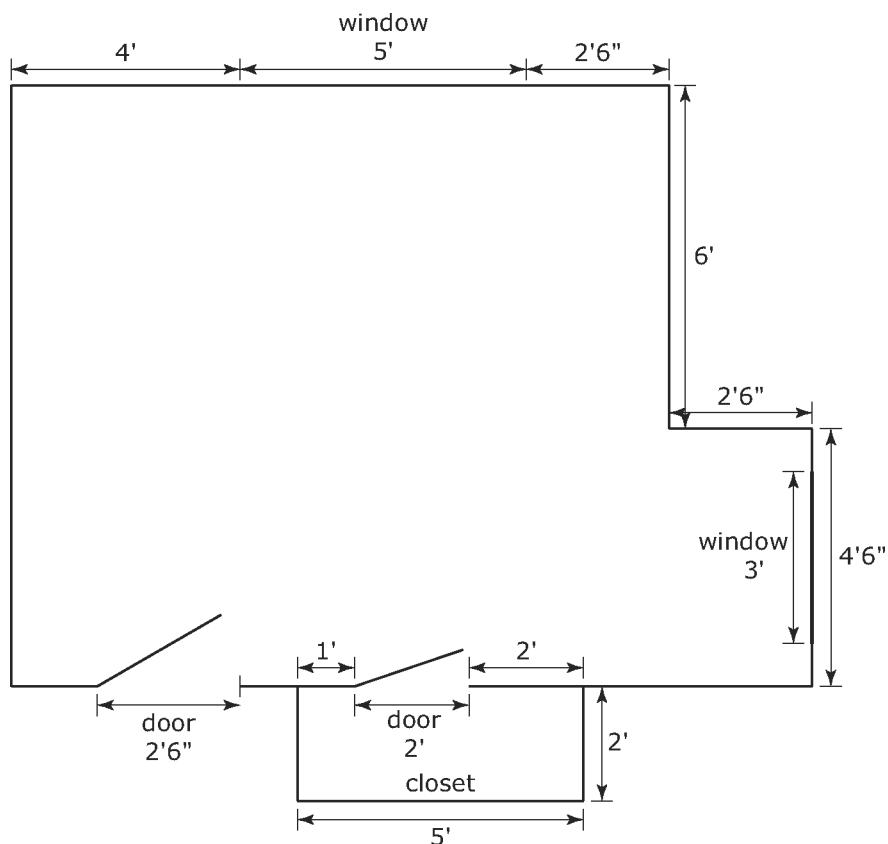
Date: \_\_\_\_\_

**Master 4**

## Part D: Renovating a Room

- Max and Rhea's twins recently celebrated their first birthday.
- The family lives in a 3-bedroom semi-detached house.
- Rhea and Max share one bedroom. The twins currently share the second bedroom. Max and Rhea plan to renovate the third bedroom into a family play room and den.

1. Rhea measured the room and made a quick sketch. Her drawing is not to scale.



Name: \_\_\_\_\_

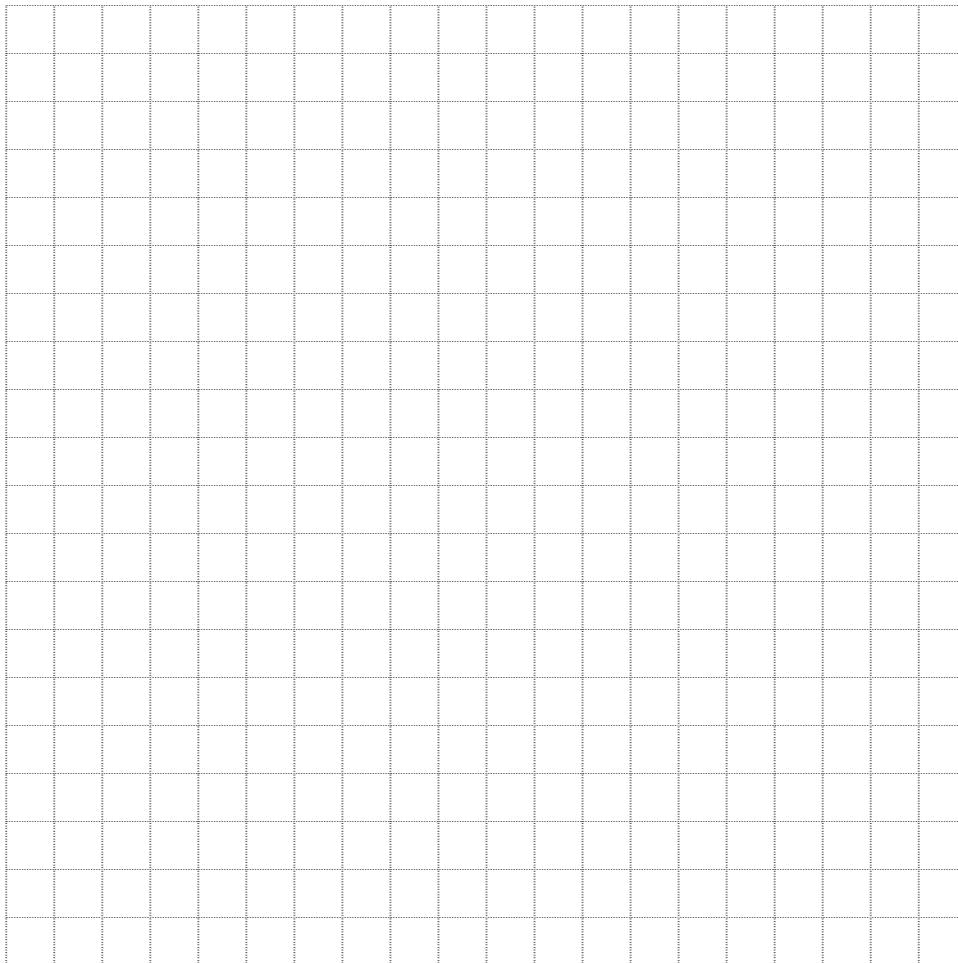
Date: \_\_\_\_\_

**Master 4**  
(continued)

Use the grid to create a scale drawing of the bedroom.

The scale of the drawing is \_\_\_\_\_.

- Label the doors, the windows, and the closet.
- Do not record the measurements on the drawing.



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Date: \_\_\_\_\_

**Master 4**  
(continued)

- The walls of the room are 8 ft high.
- The windows start 3 ft from the floor and are 4 ft high.
- The doors are 6 ft 8 in. high.

**2. a)** Determine the area of the floor. Include the closet floor.

**b)** Determine the perimeter of the room. Include the openings for the doors.

**c)** Determine the area of the walls and the inside of the closet. *Do not* include the area of the doors and windows. Show your answer to the closest square foot.

**d)** Determine the area of the ceiling. Include the closet ceiling.



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**Master 4**  
(continued)

- Rhea and Max plan to replace the windows, the doors and door knobs, the ceiling light fixture, the light switch, and three electrical outlets.
  - They will install a new carpet and new baseboard.
  - They will repaint the walls, the closet, and the ceiling.
  - They will add a wallpaper border halfway up each wall.
- 3.** They budgeted \$2000 for the renovation.
- a)** Research all the materials needed. Use a spreadsheet or the table to list the materials, quantities, and costs.
- b)** Estimate and then calculate the after-tax cost of each item. Taxable purchases are subject to HST. In Ontario, the HST is 13%.

<b>Item</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>After-Tax Estimate</b>	<b>After-Tax Cost</b>
<b>Total Cost</b>				

- c)** Did you stay within your budget of \$2000? If not, what adjustments can you make?
- 

