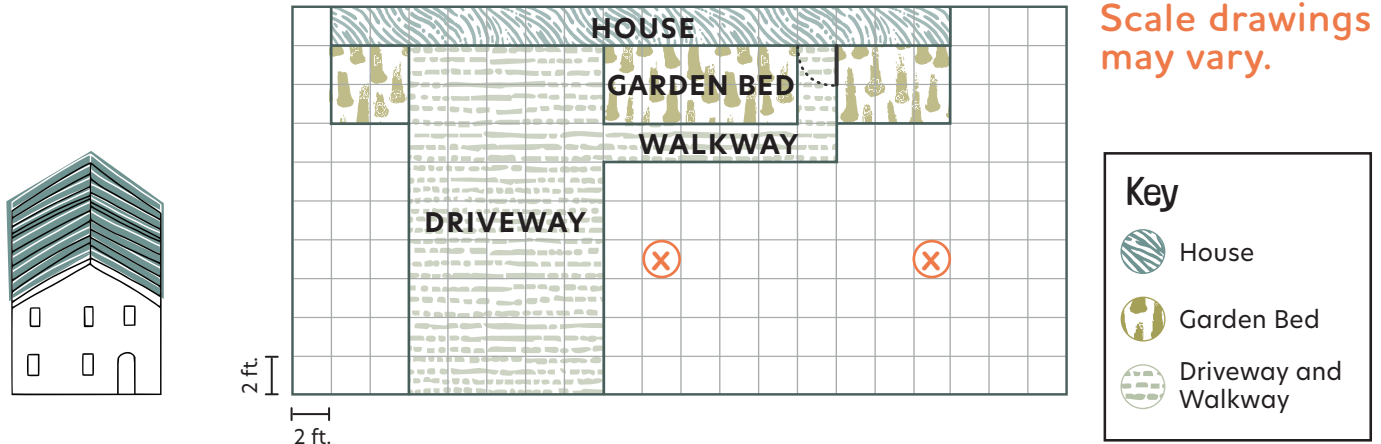


PERFORMANCE TASK 

Riley's Renovation: Scale Drawing, Area, and Circumference Performance Task



Riley's family is making some renovations to their front yard. Use the scale drawing below to help them plan! Each of the small squares on the drawing has side lengths of 2 feet. Follow the directions and answer each question.



1. Riley is helping her mom refresh the garden beds in the front of the house.

- a. Riley's mom is going to replace the mulch in each of the three garden beds. How much area will she need to cover with mulch?

80 ft.²

- b. Riley will line the garden bed edges that do not touch the house with plastic landscape edging. How many feet of edging will she need for this?

44 ft.

2. Riley's dad is planning to plant two trees in the front yard. Once the trees are big enough, Riley wants to put a hammock between them. So, the trees need to be at least 10 feet apart but no more than 18 feet apart.

- a. Riley's dad will make a circle of mulch with a diameter of 2 feet for each tree and plant a tree in the middle of each circle. Choose spots for the trees, and then mark them and draw the circles for mulch on the scale drawing. Determine about how much area he will need to cover with mulch, using 3.14 as an approximation for π .

6.28 ft.²

- b. Riley will line the edges of the mulch circles with plastic landscape edging. Determine about how many feet of edging she will need for this, using 3.14 as an approximation for π .

12.56 ft.

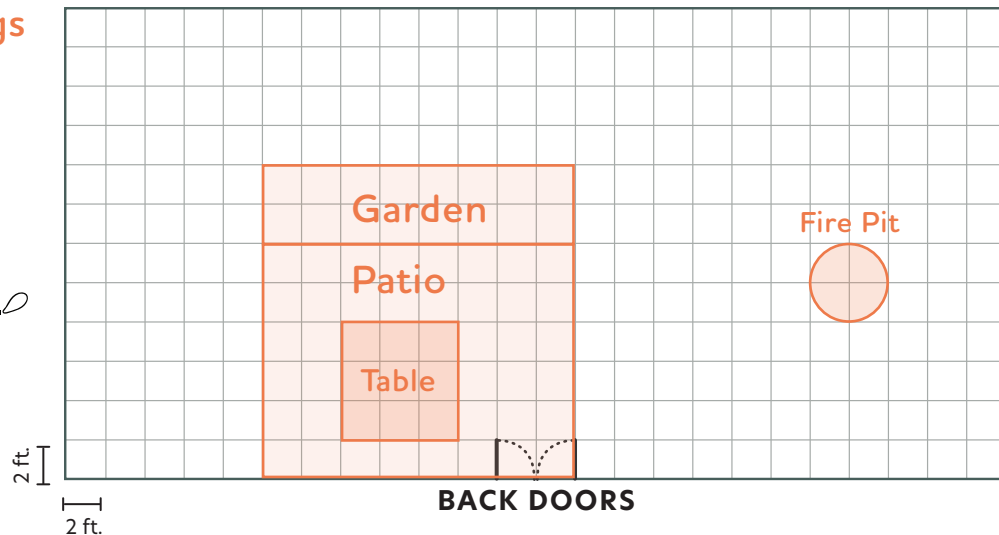
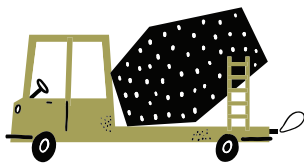
PERFORMANCE TASK 

Riley's Renovation: Scale Drawing, Area, and Circumference Performance Task



Riley's family is also making some renovations to their backyard. Use the scale drawing below to help them plan. Follow the directions and answer each question.

Scale drawings may vary.



3. Riley's dad wants to add a rectangular patio that he can walk onto from the back doors of the house. The patio should fit a square table with 6-foot side lengths. The table will have chairs on each side that should be able to push back 2 feet from the table without blocking the back doors or going off of the patio. Draw a patio on the scale drawing that will fit the table and chairs but have an area of less than 220 square feet. Then draw the table on the patio.
 - a. Riley's dad will pour concrete to create the patio. How much area will he need to cover with concrete?
Sample answer: 192 ft.²
 - b. Riley's mom will add a rectangular garden along the back of the patio. It will be the length of the patio and 4 feet wide. Draw the garden on the scale drawing. What is the area of the garden?
Sample answer: 64 ft.²
4. Riley and her mom want to build a circular fire pit with a diameter of 4 feet. They want the fire pit to be at least 6 feet from the patio. Draw a fire pit on the scale drawing.
 - a. Riley and her mom will fill the bottom of the fire pit with a layer of crushed stone. Determine about how much area they will need to cover with crushed stone, using 3.14 as an approximation for π .
12.56 ft.²
 - b. Riley's mom will place large stones around the circumference of the fire pit. Determine the approximate circumference of the fire pit, using 3.14 as an approximation for π .
12.56 ft.