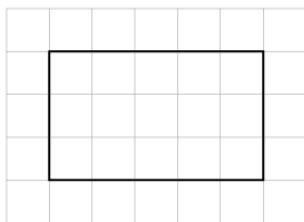


Activity 2 Assessment

Determining the Area of Rectangles

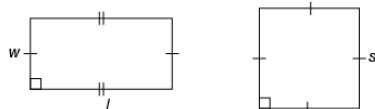
Measuring Area of Rectangles

Recognizes that area is the number of congruent squares needed to cover a surface.



“On the 1-cm grid, the rectangle forms an array of 3 rows of 5 squares: $3 \times 5 = 15$; the area of the rectangle is 15 cm^2 .”

Understands how length and width of a rectangle relate to its area and related formulas.



“A square has all sides equal. To determine its area, I multiply a side length by itself: $A = s \times s$, or $A = s^2$.
To determine the area of a rectangle, I multiply the length by the width (or base by the height):
 $A = l \times w$, or $A = lw$, or $A = b \times h$, or $A = bh$.”

Constructs different rectangles for a given area and uses formulas to check the measures.

Area of rectangle = 16 cm^2



“I constructed 3 different rectangles:
A square with side length 4 cm:
 $4 \text{ cm} \times 4 \text{ cm} = 16 \text{ cm}^2$.
A 2-cm by 8-cm rectangle:
 $2 \text{ cm} \times 8 \text{ cm} = 16 \text{ cm}^2$.
A 1-cm by 16-cm rectangle:
 $1 \text{ cm} \times 16 \text{ cm} = 16 \text{ cm}^2$ ”

Flexibly applies formulas to calculate the area of rectangles and to solve problems.

Cassie charges \$4 for each 10 m^2 of driveway shovelled. How much would Cassie charge for a driveway that is 15 m by 25 m?

“Area of driveway:
 $15 \text{ m} \times 25 \text{ m} = 375 \text{ m}^2$.
Determine how many 10 m^2 are in the total area:
 $375 \div 10 = 37 \text{ R}5$.
Cassie charged:
 $37 \times \$4 + 0.5 \times \$4 = \$148 + \$2 = \$150$.”

Observations/Documentation