

## Focus Standards and Claim

Claim 2  
6.G.A  
5.MD.C.5

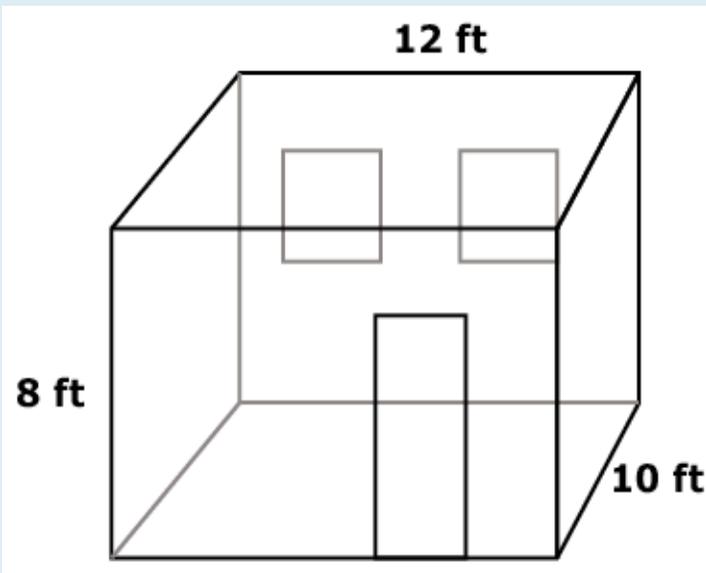
## Stimulus

### Let's Paint a Room

Your friend Sam wants to paint her room. She wants to paint the ceiling white and the four walls purple.

You are helping Sam determine the cost and the amount of time needed to paint her room.

The room is shaped like a rectangular prism with a height of 8 feet, length of 12 feet, and width of 10 feet as shown.



Additional information about Sam's room:

- The door has an area of 22 square feet.
- The room has 2 square windows.
- Each window opening is 2 feet by 2 feet.

## Item Prompt

Sam needs to figure out how much purple paint to buy.  
Calculate for her the total area, in square feet, of the four **walls**.  
She will **not** paint the door or windows.



## Scoring Guide

SCORE	1 POINT	0 POINTS
	Correct response 322	All other responses

## Sample Responses

## Student Sample A



322

## SCORE RATIONALE

Correct response. The response suggests that the student correctly calculated the area of each of the surfaces, and accounted for the areas of the two windows and door.

## Student Sample B



70

## SCORE RATIONALE

Incorrect response. The student may have attempted to add relevant lengths together, instead of adding the products of the lengths to find the total surface area.

**Student Sample C****80****SCORE RATIONALE**

Incorrect response. The response suggests that the student calculated the area of one of the four walls.

**Student Sample D****1060****SCORE RATIONALE**

Incorrect response. The student applied the formula for the volume of a rectangular prism.

**Student Sample E****50****SCORE RATIONALE**

Incorrect response. The student may have calculated the area of one wall to be 80 square feet, then subtracted the area of the door, and finally subtracted the area of the two windows.

**Student Sample F****352****SCORE RATIONALE**

Incorrect response. This response is an accurate calculation of the area of all four walls, but does not account for the absent areas of the door and two windows.