

Answer on Question #43986, Math, Geometry

How many dusters, each 16 cm square can be cut from material 84 cm long, 36 cm wide? What area remains over?

Solution:

Duster can gain any form. (not only square), so

- 1) Calculate area of material:

$$\text{Area} = 84 \cdot 36 = 3024(\text{cm}^2)$$

- 2) Calculate how many dusters we can make

$$\text{Dusters} = \frac{3024}{16} = 189$$

Division completed without remainder, therefore no materials left.

Answer: 189 dusters.