TILES, TILES, TILES…

Floor and wall tiles come in different sizes. The basic tile is shown below.

2 cm

3 cm

a. How many basic tiles would be needed for an area of 6 cm by 4 cm?

b. How many basic tiles would be needed for an area of 27 cm by 18 cm?

c. If the length and width of the basic tile were increased by 2 cm, how many of the larger tiles would be needed to cover 1 square metre (100 cm by 100 cm)?

Show all your working so we can understand your thinking.