

Participant data

Number: _____

Group: _____

Next, you will find 12 mathematical problems. Read each one carefully; **you don't need to solve them**, just answer the questions that appear below each of them honestly.

The scale used throughout the questionnaire is as follows:

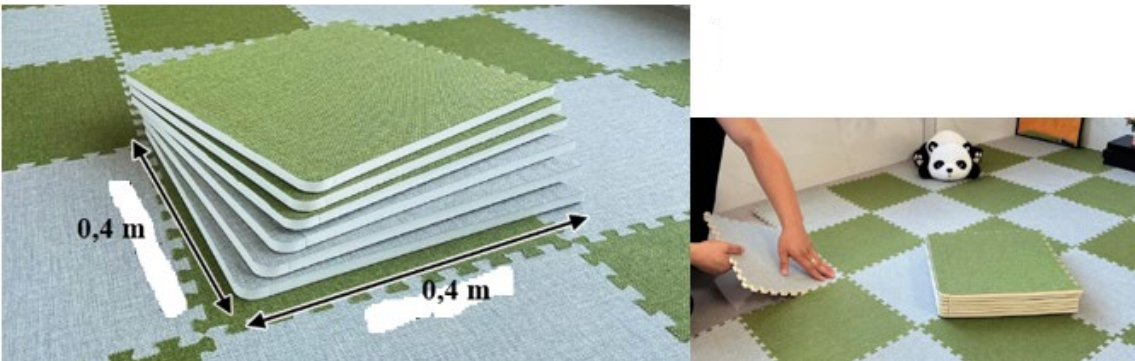
- 1 - Strongly disagree
- 2 - Partially disagree
- 3 - Neither agree nor disagree
- 4 - Partially agree
- 5 - Strongly agree

1. From the image of this real room, reason and do calculations to get a measurement of the surface of the back wall



Items: own perspective/hypothetical 6th-graders	1	2	3	4	5
I think it is important to be able to solve this problem/Students think it is important to be able to solve this problem					
I am confident I can solve this problem/The students are confident they can solve this problem					

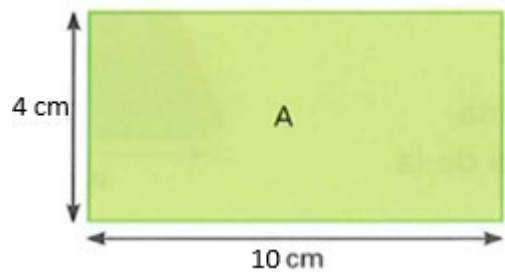
P2. Ana and Gustavo are going to cover the rectangular floor of their daughter's room, 6 meters wide by 4 meters long, with rubber tiles. The dimensions of the square tiles can be seen in the image. How many tiles will they need to buy?



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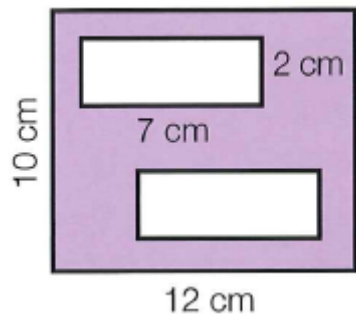
P3. Calculate how many 2 cm squares we need to cover rectangle A in the picture:

to cover



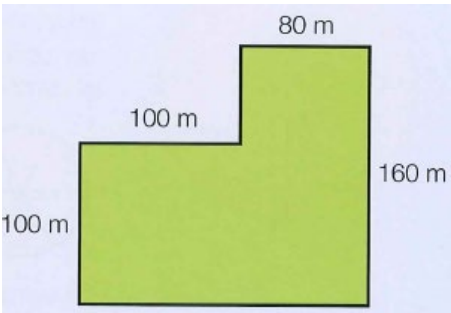
Items: own perspective/hypothetical 6th-graders	1	2	3	4	5
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4. Calculate the area of the coloured area:

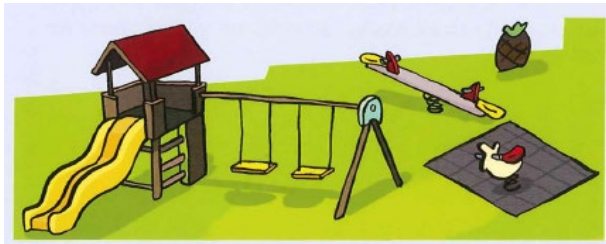


Items: own perspective/hypothetical 6th-graders	1	2	3	4	5
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5. The city council has bought this land to build a playground.

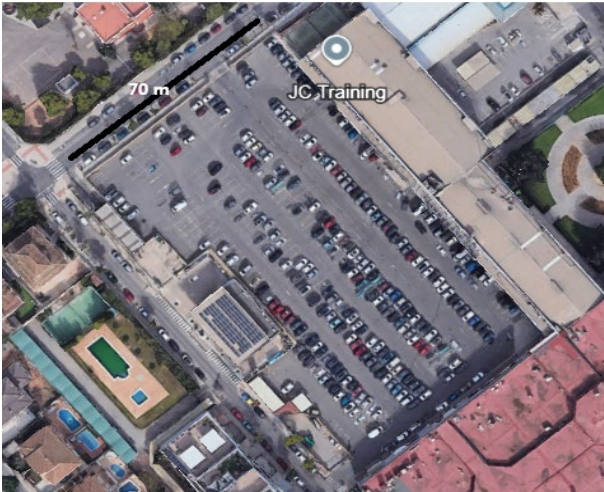


Before you put up the "playgrounds," you need to know the area this new park will have. Calculate it.



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6. In the picture, you can see the parking lot of a shopping centre. We know that the side of this car park where the entrance is located measures 70 metres (as indicated in the image). Reason and calculate to determine its area.



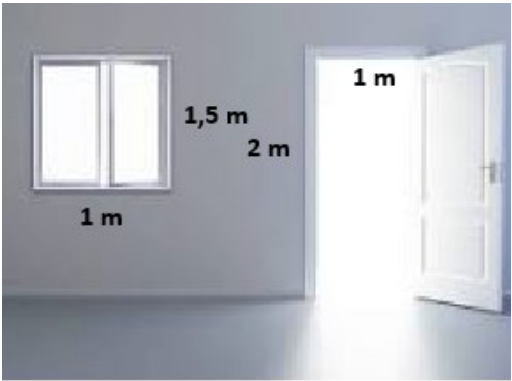
Items: own perspective/hypothetical 6th-graders	1	2	3	4	5
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P7. During the pandemic, each child had to have a free space of 2 square meters in the playground. Considering the basketball court in the picture, try to determine how many children there could be if we had to comply with this restriction.



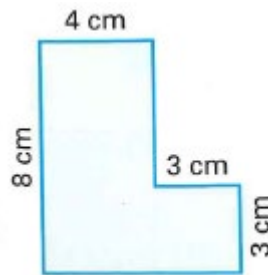
Items: own perspective/hypothetical 6th-graders	1	2	3	4	5
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8. We want to paint the wall of this room, but to know the amount of paint we need, we must first know its surface. The wall is 6 meters long by 3 meters high. We have also measured the door and the window, the dimensions of which can be seen in the image. How long will the surface of the wall we are going to paint be?



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9. Calculate the area of the following figure:



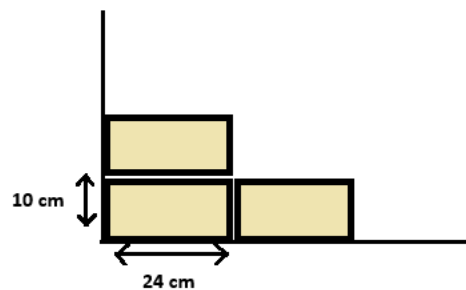
Items: own perspective/hypothetical 6th-graders	1	2	3	4	5
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10. We are going to organize a lunch in the schoolyard and we will have to take out 20 desks like the ones in the image to place the food and drink. The school's courtyard is rectangular in shape, 30 meters long and 20 meters wide. Reason and make calculations to determine the size of the surface that will be available in the yard when we place the desks



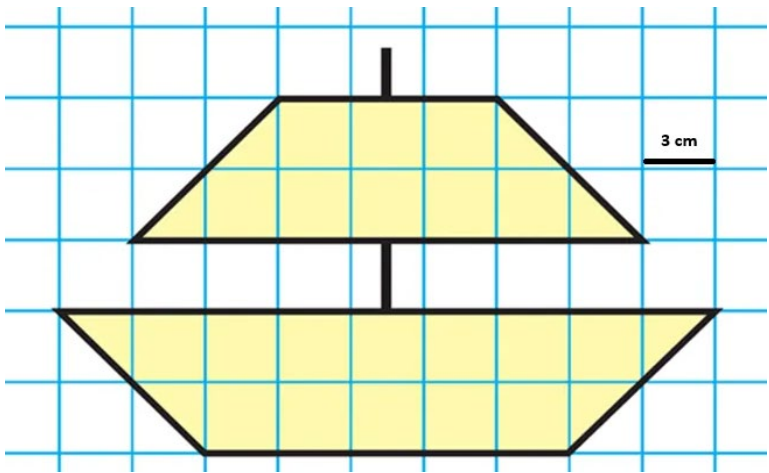
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11. We need to know the dimensions of a wall in order to paint it. We know that the wall is covered by bricks, so that there are 20 bricks along and 25 at the top, whose dimensions and arrangement can be seen in the image. How long will the surface of this wall be?



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12. From the information you can get from the image, what is the total area of the colored figure?



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