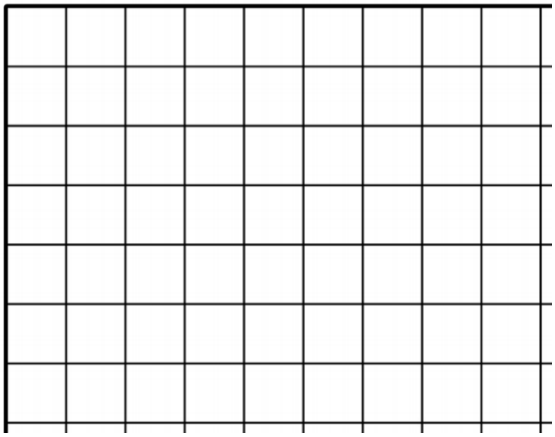
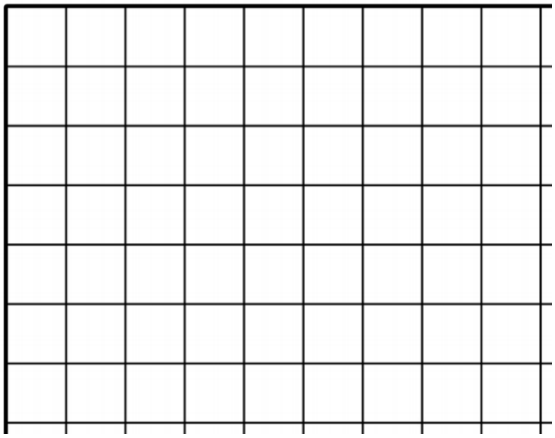
Quiz 4.3 - Exploring Rectangles with Equal Perimeters

1. Draw all possible rectangles with each perimeter.

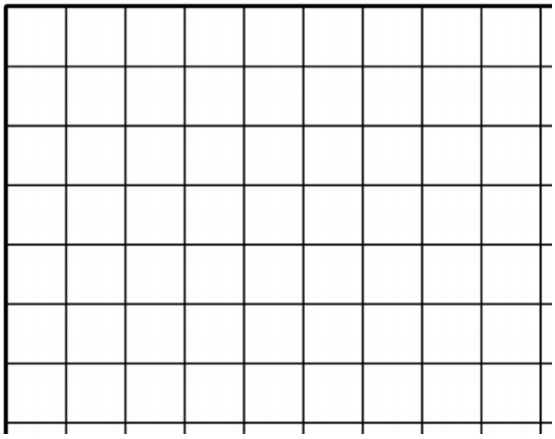
a) 14 cm



b) 8 cm



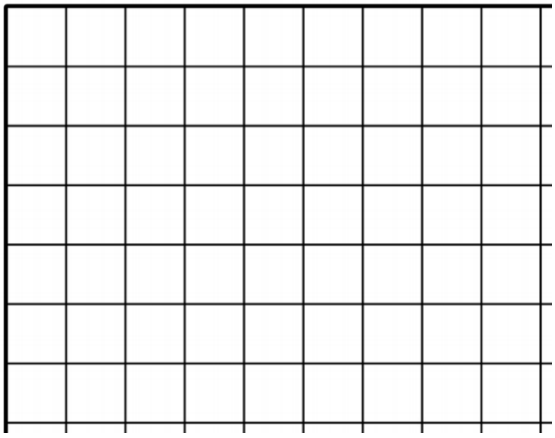
c) 18 cm



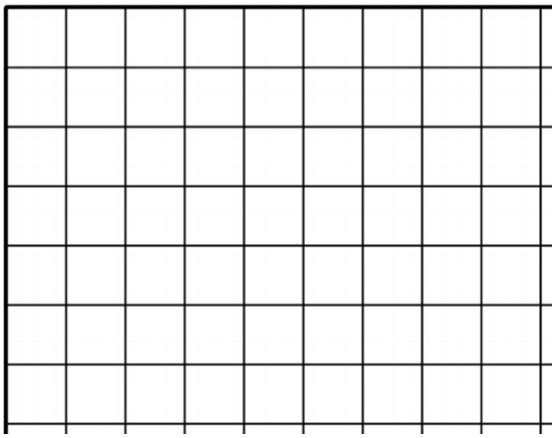
2. Draw 2 different rectangles with each perimeter – the rectangle with the least area and the rectangle with the greatest area.

Find the area of each rectangle.

a) Perimeter = 16 cm Area = _____ cm^2

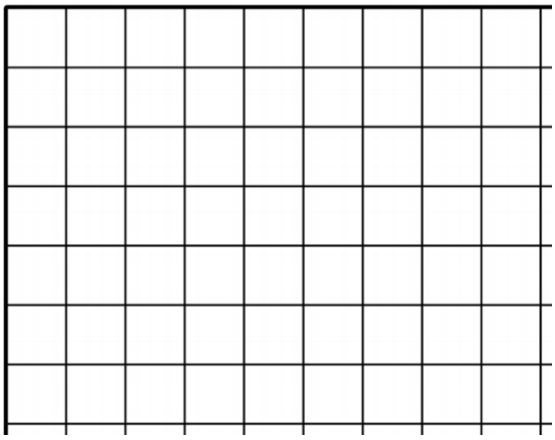


b) 20 cm Area = _____ cm^2

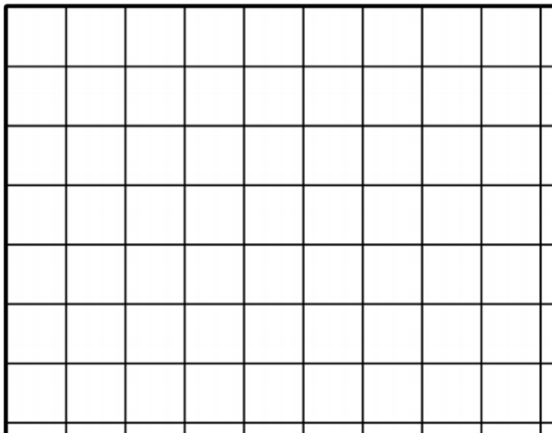


3. Draw a rectangle with each perimeter and area.

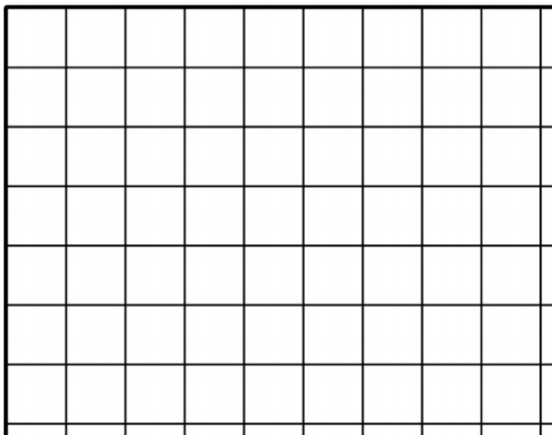
a) perimeter 24 cm and area 32 cm^2



b) perimeter 22 cm and area 18 cm^2



c) perimeter 22 cm and area 28 cm^2



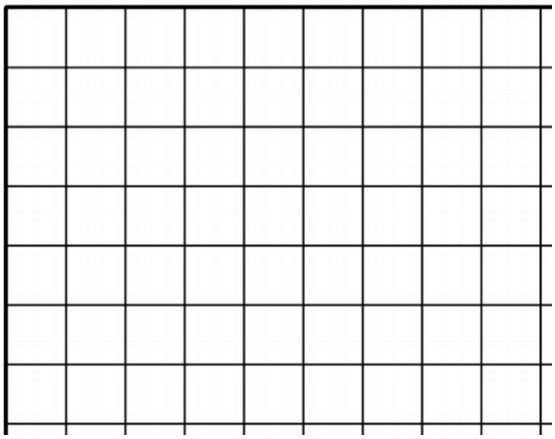
4. Anju has 48 m of fencing to put around his garden.

a) List all the possible lengths and widths of Anju's garden.

b) Which dimensions will Anju choose if he wants the garden with the greatest possible area?

c) Which dimensions will Anju choose if he wants the garden with the least possible area?

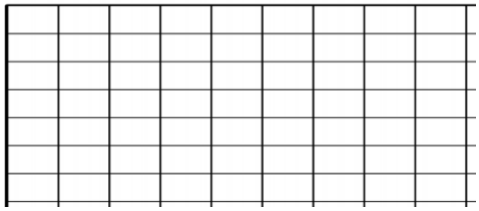
5. a) Use 1-cm grid paper. Draw a rectangle 12 cm long and 8 cm wide.



c) What is the perimeter of the rectangle? _____ cm

What is the area of the rectangle? _____ cm^2

6. a) Draw a rectangle with the same perimeter but greater area than the rectangle you drew in question 5.



b) Draw a rectangle with the same perimeter but lesser area.