It is an excerpt from a pre-algebra book by Victoria Kofman; educational use is permitted.

1. Find the perimeters of the figures below using the best approaches.



Hint: Adding all the answers results in 190.

4. Find the perimeter of the figure below using the given measurements. In the figures below, all the angles are right angles, although the figures are not drawn to scale.



Section 18.2

In each problem of these sections:

Unless another unit is given, use the length of a square as a unit of length; use the area of a square as the unit of area, and the smallest cube shown as a unit of volume.

Mark all dimensions used for calculations.

Mark auxiliary elements with red pencil.

Shade each chunk you make with colored pencils.

Each vertex is set to be on a node, i.e. on a crossing of the lines of the graph paper.

You may use only the nodes that belong to vertical or horizontal line segments. If a tilted line seems to go through a node, you cannot use the node to solve the problem.

In this and following two sections, use $\pi = 3.14$.

9. Find the area.





10. Find the area of the figures using chunking. Mark all the dimensions that you use in calculations.



Answer:

12. Find the area without using chunking. Explain your solution.

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Answer:

24. Find the perimeter using shuffling.

On the space provided, draw the figure the way it looks after shuffling.

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25. Find the area by adding and then subtracting parts.



Answer: _____

26. Find the area using two methods. First, use chunking, then use adding and Chunking subtracting parts.



Before writing an answer, can you come up with a better way of solving the problem? It does exist!

Answer: _____





۵)

b)

c)

d)

Answer: a) _____, b) _____, c) _____, and d) _____.

28. Find the areas of the figures Happy Fish and Angry Fish to the nearest hundredth. *Pay attention and make sure to subtract the areas of holes: the "eyes". Explain your solution.*



Answer: A_{HappyFish}=____, A_{AngryFish}=_____.

29. Find the areas of the figures Gold Necklace and Warm Mitten to the nearest hundredth.

Explain your solution.



Answer: A_{GoldNecklace}=____, A_{WarmMitten}=_____.









