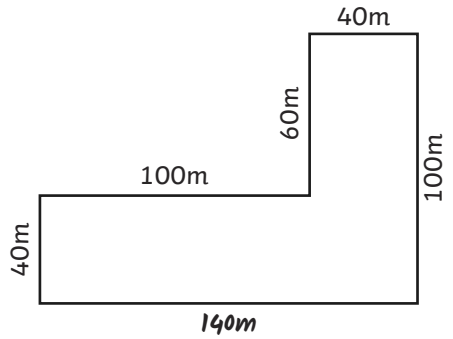
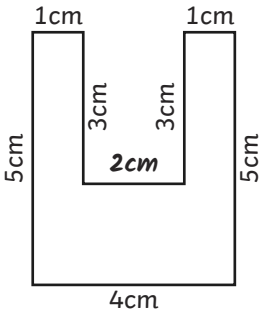
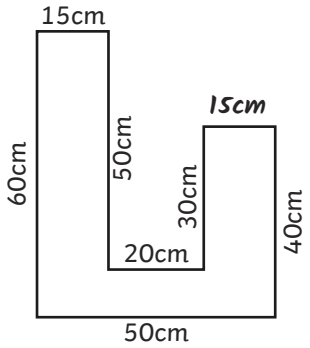
1)



Perimeter = **480m**



Perimeter = **24cm**



Perimeter = **280cm**

2) a) **18cm**

b) **Multiple shapes are possible. Both should have a perimeter of 18cm.**

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1) **He has only added the measurements labelled.**
6500m

2) a) **This is true because 2cm + 2cm + 8cm + 8cm = 20cm so the perimeter of the rectangle is 20cm and the square also has a perimeter of 20cm because 4 × 5cm = 20cm.**

b) **False. Look for explanations giving examples that disprove the statement, e.g. A long, thin rectangle with sides of 6cm and 1cm has a perimeter of 14cm, which is smaller than the perimeter of a shorter, wider rectangle with sides of 5cm and 3cm, which would be 16cm.**

c) **This is false because the rectilinear shape will have a perimeter of 32cm (no matter which way round you put the two squares).**

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1) a) **Answers will vary.**

b) **Yes. Children should demonstrate that they can rearrange the shape and calculate the new perimeter accurately.**

2) a) **Multiple answers possible. Check that shapes have the specified perimeters.**

b) **Tarj is partly right because if you draw an extra square onto the outside of a shape, touching only 1 edge, you are adding 3 more sides. Each side on centimetre square paper is 1cm so adding an extra square adds 3cm to the perimeter. However, if you add the square into a corner of the shape, touching 2 edges, the perimeter will not change, and if you add it into a notch in the shape, touching 3 edges, the perimeter will decrease.**