Discussion Problems
Step 2: Calculate Perimeter

National Curriculum Objectives:

Mathematics Year 5: (5M7a) Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres

About this resource:

This resource has been designed for pupils who understand the concepts within this step. It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More Year 5 Perimeter and Area resources.

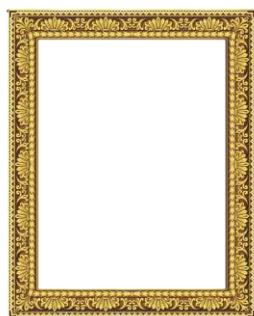## Did you like this resource? Don't forget to review it on our website.

Calculate Perimeter

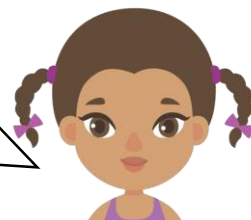**1.** Kaiyan and Millie are discussing their photo frame and photo.

The length of the photo frame is 2 and a half times its width.

Kaiyan

If it is put in the frame, the edge of the photo is always 2.25cm away from the inside edge of the frame.
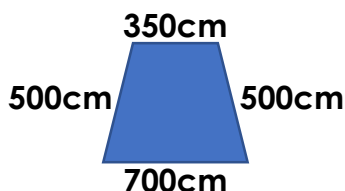
Millie

Not to scale

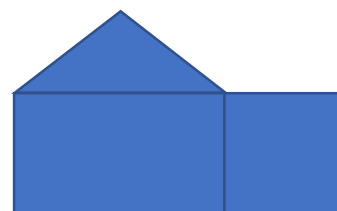Explore the different pairs of perimeters for the photo and the photo frame.

DP

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2. Explore the outlines of buildings you can create with a total perimeter between 35m and 40m using the shapes and their perimeters below.

5.25m

7m

5.25m

350cm

500cm   500cm

700cm

3.5m

Here is an example:

perimeter = 35m
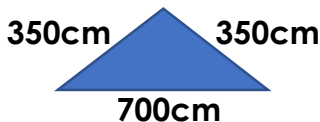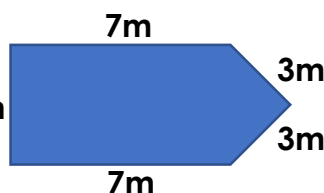
5.25m

350cm   350cm

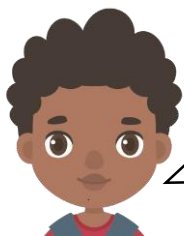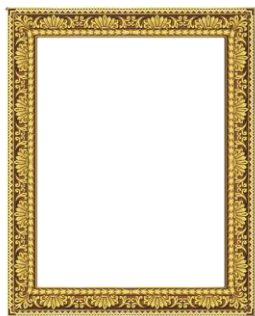700cm

7m

5.25m   3m

3m

7m

Not to scale

DP

Calculate Perimeter

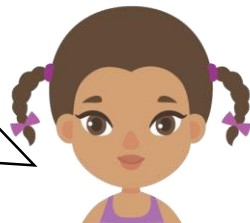**1.** Kaiyan and Millie are discussing their photo frame and photo.

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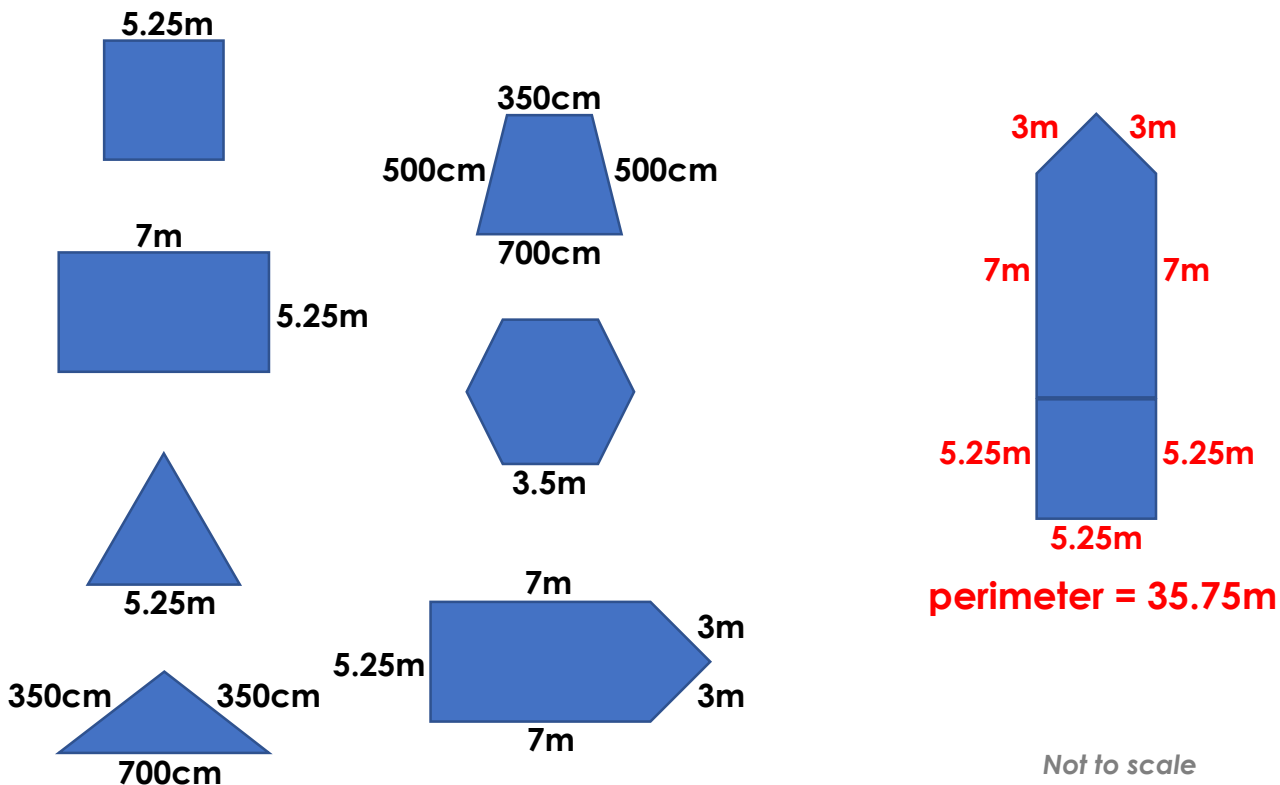
Millie

Not to scale

Explore the different pairs of perimeters for the photo and the photo frame.
Various answers, for example:
frame = 25cm x 10cm, photo = 20.5cm x 5.5cm

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2. Explore the outlines of buildings you can create with a total perimeter between 35m and 40m using the shapes and their perimeters below. **Various answers, for example:**

5.25m

7m
5.25m

350cm
500cm   500cm
700cm

5.25m
350cm   350cm
700cm

3.5m

7m
5.25m   3m
              3m
7m

3m   3m
7m   7m
5.25m   5.25m
5.25m

perimeter = 35.75m

Not to scale

DP