

Discussion Problems

Step 2: Measuring with a Protractor 1

National Curriculum Objectives:

Mathematics Year 5: (5G4a) [Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles](#)

Mathematics Year 5: (5G4c) [Draw given angles and measure them in degrees](#)

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.

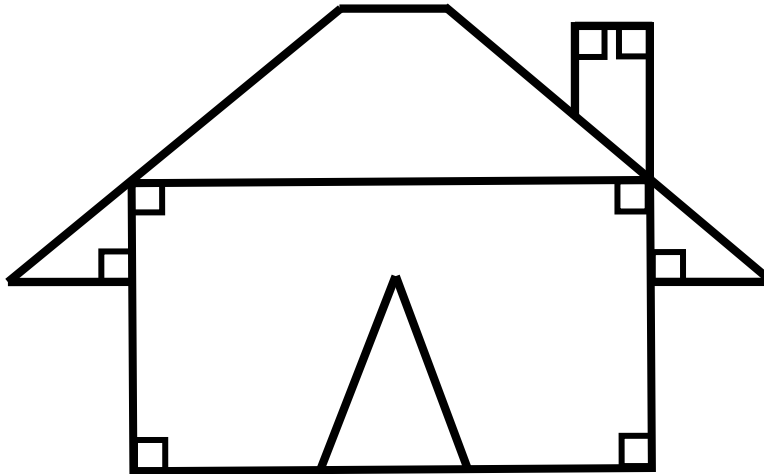
We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More [Year 5 Properties of Shapes](#) resources.

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

Measuring with a Protractor 1

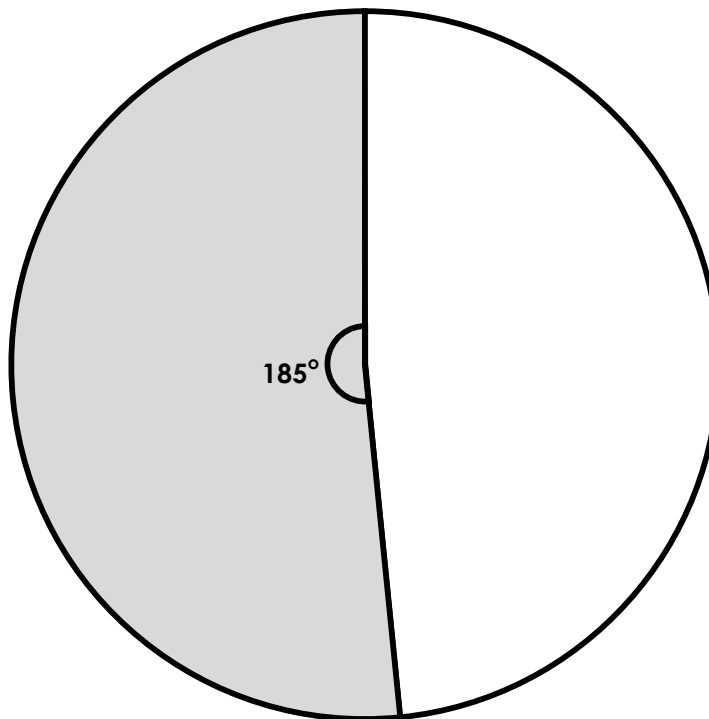
1. Russell has created a house using only straight lines and is measuring the acute angles within it. Identify and count the number of acute angles in his drawing, then measure them using a protractor.



Once finished, create your own drawing using only straight lines! How many acute angles can you create within yours?

DP

2. Using a protractor, investigate how many different acute angles you can fit in the unshaded part of the circle below. You can not use the same angle more than once.

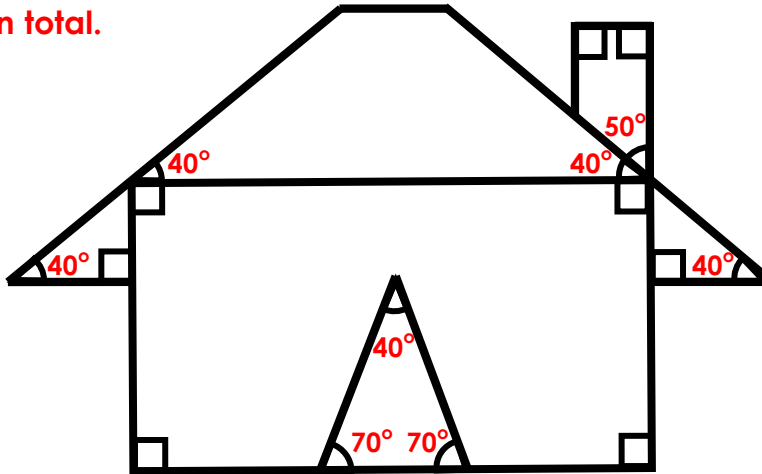


DP

Measuring with a Protractor 1

1. Russell has created a house using only straight lines and is measuring the acute angles within it. Identify and count the number of acute angles in his drawing, then measure them using a protractor.

8 acute angles in total.

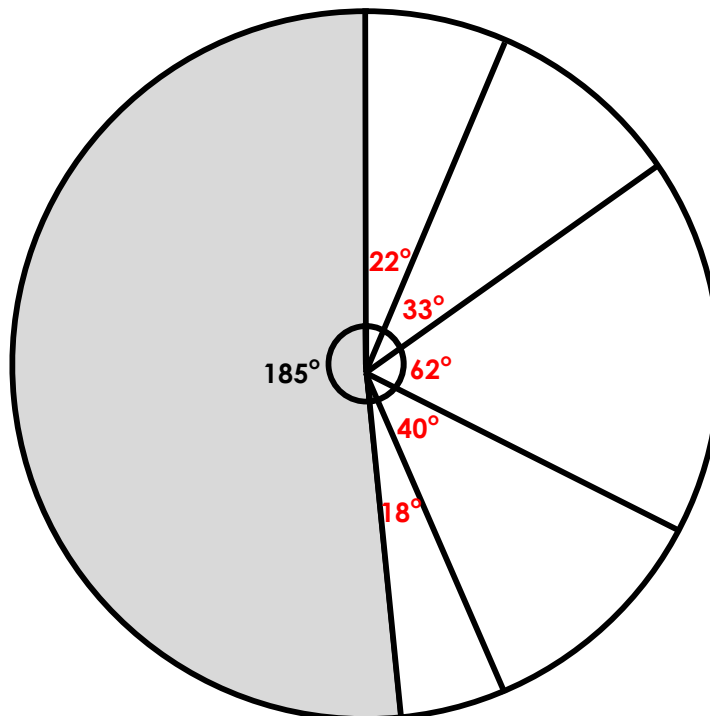


Once finished, create your own drawing using only straight lines! How many acute angles can you create within yours?

Various possible answers.

DP

2. Using a protractor, investigate how many different acute angles you can fit in the unshaded part of the circle below. You can not use the same angle more than once.



Various possible answers, for example: 5 different acute angles as shown above.

DP