

Homework/Extension

Step 1: Measure with a Protractor

National Curriculum Objectives:

Mathematics Year 6: (6G2a) [Compare and classify geometric shapes based on their properties and sizes](#)

Mathematics Year 6: (6G3a) [Draw 2-D shapes using given dimensions and angles](#)

Mathematics Year 6: (6G4a) [Find unknown angles in any triangles, quadrilaterals, and regular polygons](#)

Mathematics Year 6: (6G4b) [Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles](#)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Match 3 angles to their measurements using degrees in tens and in regular orientations.

Expected Match 4 angles to their measurements using degrees in fives and in regular orientations.

Greater Depth Match 4 angles to their measurements using degrees in ones and in irregular orientations.

Questions 2, 5 and 8 (Varied Fluency)

Developing Identify if the measurement of an angle is correct using degrees in tens and in regular orientations.

Expected Identify if the measurement of an angle is correct using degrees in fives and in regular orientations.

Greater Depth Identify if the measurement of an angle is correct using degrees in ones and in irregular orientations.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

Developing Circle the possible measurements of an angle using degrees in tens and in regular orientations. Includes 4 options.

Expected Circle the possible measurements of an angle using degrees in fives and in regular orientations. Includes 6 options.

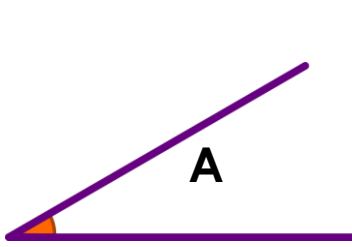
Greater Depth Circle the possible measurements of an angle using degrees in ones and in irregular orientations. Includes 8 options.

More [Year 6 Properties of Shapes](#) resources.

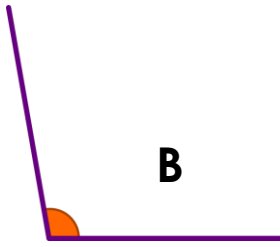
Did you like this resource? Don't forget to [review](#) it on our website.

Measure with a Protractor

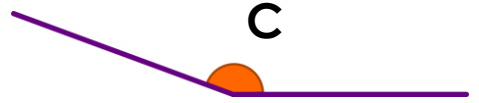
1. Match each angle to its measurement.



100°



160°



30°

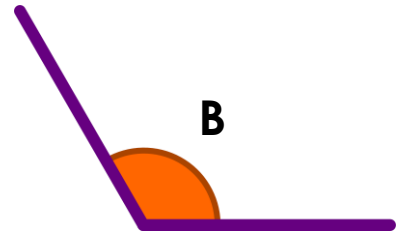
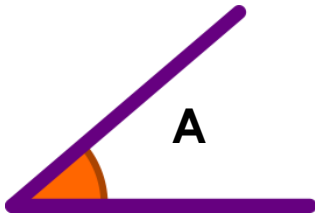


VF
HW/Ext

2. True or false?

Angle A measures 10°.

Angle B measures 120°.

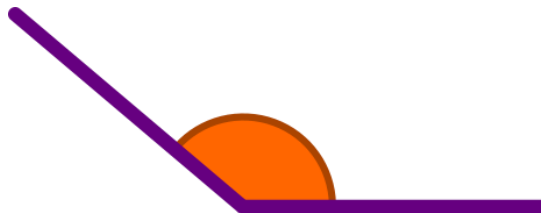


VF
HW/Ext

3. Without using a protractor, circle the possible measurements of the angle below.

150°

20°



90°

140°

Explain your reasoning.

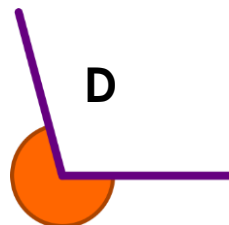
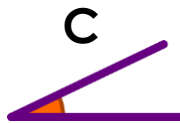
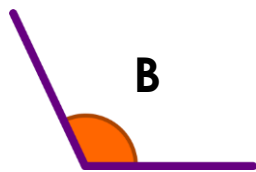
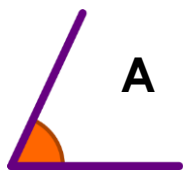
Now measure the angle to see if you were correct.



RPS
HW/Ext

Measure with a Protractor

4. Match each angle to its measurement.



65°

255°

115°

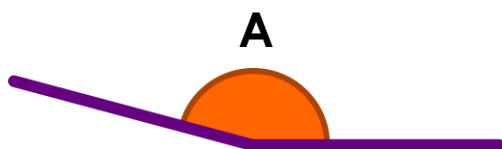
25°



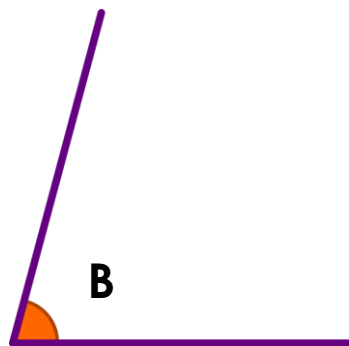
VF
HW/Ext

5. True or false?

Angle A measures 165°.



Angle B measures 85°.



VF
HW/Ext

6. Without using a protractor, circle the possible measurements of the angle below.

45°

85°

100°

105°

40°

50°



Explain your reasoning.

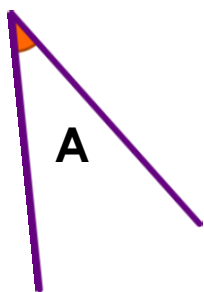
Now measure the angle to see if you were correct.



RPS
HW/Ext

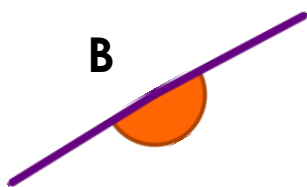
Measure with a Protractor

7. Match each angle to its measurement.



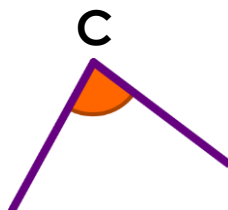
A

82°



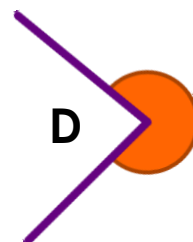
B

276°



C

36°



D

176°

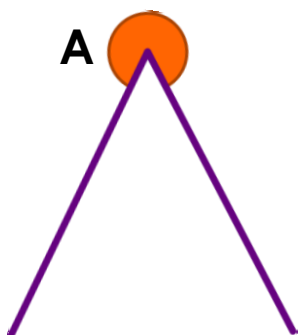


VF
HW/Ext

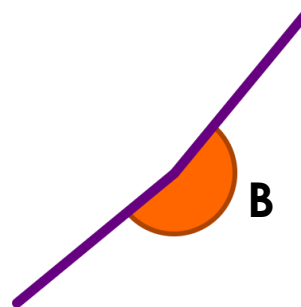
8. True or false?

Angle A measures 302°.

Angle B measures 187°.



A



B



VF
HW/Ext

9. Without using a protractor, circle the possible measurements of the angle below.

187°

89°

113

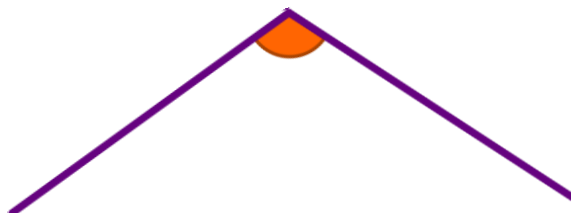
179°

91°

163°

109°

111°



Explain your reasoning.

Now measure the angle to see if you were correct.



RPS
HW/Ext

Homework/Extension

Measure with a Protractor

Developing

1. A – 30° , B – 100° , C – 160°
2. A – False, Angle A measures 40° ; B – True
3. 140° or 150° because the angle is obtuse. 20° is an acute angle and 90° is a right angle.

Expected

4. A – 65° , B – 115° , C – 25° , D – 255°
5. A – True; B – False, Angle B measures 75° .
6. 40° , 45° or 50° because the angle is acute and looks around half of a right angle. 85° is close to a right angle and 100° and 105° are obtuse angles.

Greater Depth

7. A – 36° , B – 176° , C – 82° , D – 276°
8. False, Angle A measures 307° ; False, Angle B measures 191°
9. 109° , 111° or 113° because the angle is obtuse. 89° is an acute angle and 91° is close to a right angle. 167° and 179° are close to a straight line and 187° is a reflex angle.