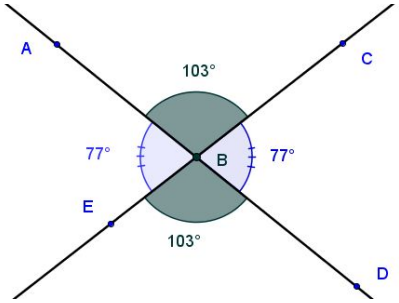
Student Activity Theorem 1

Use in connection with interactive file "Theorem 1" on the Student's CD.



1. Drag the point C to make the measure of angle CBA equal to 90^o. What do you notice about the measure of the angle EBD? _____

2. When the measure of the angle CBA is 90^o What do notice about the measures of the angles EBD, ABE and CBD.

   _____

3. What conclusion can be drawn from adding all the angles in question 2?

   _____

4. Drag the point C to make the measure of the angle CBD equal to 70^o. Write down the measures of the angles ABE, ABC and EBD.
   ABE = _____, ABC = _____ and EBD = _____

5. Drag the point C to make the measure of the angle ABE 60^o. Is the measure of the angle CBD the same? _____

   What is the measure of the angle ABC? _____ Is the measure of the angle EBD equal to the measure of the angle ABC? _____

6. Drag the point C to make the measure of the angle ABC 130^o. Is the measure of the angle EBD the same? _____

   What is the measure of the angle ABE?_____ Is the measure of the angle CBD equal to the measure of the angle ABE? _____

7. By dragging the point C make the measure of the angle ABC 93^o. When you add the measure of angle ABC to the measure of angle CBD what answer do you get?_____
   What does this tell you about the points A, B and D?_____

8. Make the measure of the angle EBD = 100^{o}. What are the measures of the following angles (i) ABC = _____ (ii) EBA = _____ (iii) CBD = _____What does this show you?_____

   When you add the measures of the angles EBD, ABE, ABC and CBD you get _____

9. Click on the Tick Box on the interactive file to reveal the wording of this theorem.

   Did you come to this conclusion? _____