## Student Activity Theorem 6

## Use in connection with interactive file "Theorem 6" on the Student's CD.



Give all answers correct to the nearest degree.

1. Drag the point $A$ to make the measure of the angle $E B A=130^{\circ}$

What is the measure of the angle BAC? $\qquad$ .
What is the measure of the angle BCA? $\qquad$
What is the sum of the measures of the angles BAC and BCA?
Measure of the angle BAC + Measure of BCA = $\qquad$
Is this sum equal to the measure of the angle EBA? $\qquad$
2. Drag the point $A$ to make the measure of the angle $D C A=100^{\circ}$.

What is the measure of the angle CBA? $\qquad$ .
What is the measure of the angle CAB? $\qquad$ .
What is the sum of the measures of the angles CBA and CAB?
Measure of the angle CBA + Measure of CAB = $\qquad$
Is this sum equal to the measure of the angle DCA? $\qquad$
3. Drag the point $A$ to make the measure of the angle $F A B=110^{\circ}$.

What is the measure of the angle $A B C$ ? $\qquad$ .
What is the measure of the angle ACB? $\qquad$ .

What is the sum of the measures of the angles $A B C$ and $A C B$ ? $\qquad$
Measure of the angle $A B C+$ Measure of $A C B=$ $\qquad$
Is this sum equal to the measure of the angle $F A B$ ? $\qquad$
4. Drag the point $A$ to make the measure of the angle $D C A=84^{\circ}$.

What is the measure of the angle CBA? $\qquad$ .
What is the measure of the angle CAB? $\qquad$ .
What is the sum of the measures of the angles CBA and CAB? $\qquad$
Measure of the angle CBA + Measure of CAB = $\qquad$
Is this sum equal to the measure of the angle DCA? $\qquad$
5. What conclusion can you deduce from the measurements in Q 1, Q2, Q3, and Q4. Conclusion. $\qquad$
6. Click on the Tick Box on the interactive file to reveal the wording of this theorem. Did you come to this conclusion? $\qquad$ -.

