## Student Activity Theorem 11

Use in connection with interactive file "Theorem 11" on the Student's CD. (Higher Level only)


1. What is meant by parallel lines and name three sets of parallel lines in the interactive file?
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2. How can you tell that the lines selected by you in Q. 1 above are parallel in the interactive file? $\qquad$
$\qquad$
3. What is meant by a transversal line and name two transversal lines in the interactive file? $\qquad$
4. What are the lengths of $A B$ and $B C$ in the interactive file? Are they equal?
$\qquad$
5. What are the lengths of DE and EF in the interactive file? Are they equal?
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$\qquad$
6. Move the point $A$ and see what the ratio of $A B: B C$ is and calculate the ratio of $D E: E F$ for the same location. Repeat for three different locations. Show calculations.
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$\qquad$
$\qquad$
7. Did you see a pattern develop in question 6 and if so explain it in your own words?
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$\qquad$
8. Click on the Tick Box to show the wording of this theorem.

Explain in your own words the meaning of this theorem.
$\qquad$
9. In the diagram below, if you know lines $a, b$ and $c$ are parallel, find the length of $D E$.


Explain your answer. $\qquad$
10. In the diagram below, if you know lines $a, b$ and $c$ are parallel, find the length of $A B$.


Explain your answer.

