

Activity Lesson Opener

For use with pages 498–505

SET UP: Work with a partner or in a group of three.**Three theorems, along with their diagrams and proportions, got all mixed up! Match each theorem with a diagram and a proportion to solve the puzzle in Exercise 4.****Theorems**

1. If a line parallel to one side of a triangle intersects the other two sides, then it divides the two sides proportionally.

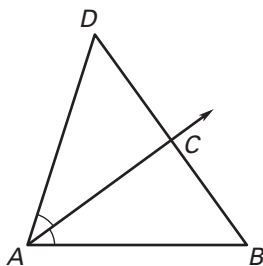
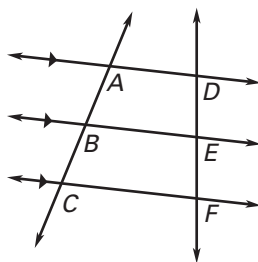
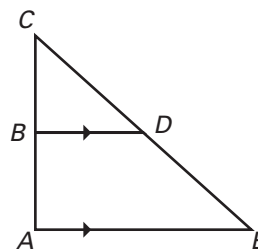
Diagram: _____ Proportion: _____

2. If three parallel lines intersect two transversals, then they divide the transversals proportionally.

Diagram: _____ Proportion: _____

3. If a ray bisects an angle of a triangle, then it divides the opposite side into segments whose lengths are proportional to the lengths of the other two sides.

Diagram: _____ Proportion: _____

Diagrams**A.****B.****C.****Proportions**

D. $\frac{BC}{CD} = \frac{AB}{AD}$

E. $\frac{AB}{BC} = \frac{DE}{CD}$

F. $\frac{AB}{BC} = \frac{DE}{EF}$

4. Write your answers in order in the blank spaces below.

___LE___RATE! HAVE ___UN! YOU ___RE ___ONE!