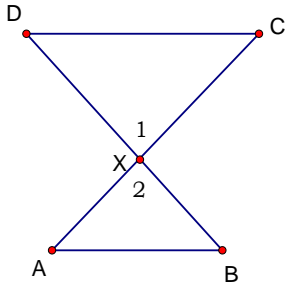
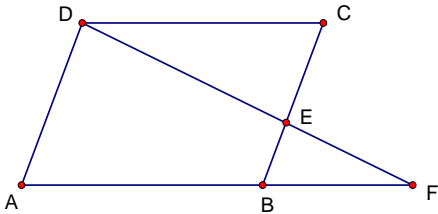


1. Given:  $(AX)(DX) = (BX)(CX)$   
Prove:  $\triangle ABX \sim \triangle CDX$



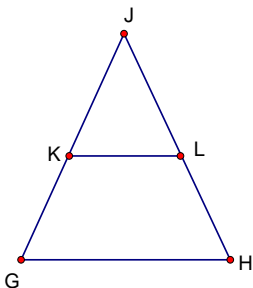
2. Given: Parallelogram  $ABCD$   
 $\overline{ABF}$

Prove:  $\frac{BE}{CE} = \frac{BF}{CD}$

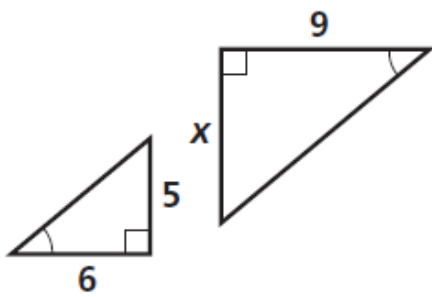


3. Given:  $\frac{GJ}{KJ} = \frac{HJ}{LJ}$

Prove:  $(GH)(JK) = (KL)(GJ)$



4.

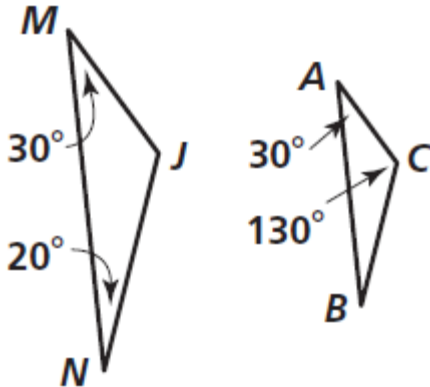


a. Explain why the triangles are similar and find the similarity ratio.

b. Find the value of  $x$ .

c. What is the ratio of their perimeters? How do you know?

5.  $MJ:AC=3:2$  and  $MJ=21$ .



a. Are the triangles similar? Explain how you know.

b. Find  $AC$ .

c. What is the ratio of their areas?

d. If the area of  $\triangle MJN$  is 540 sq. units, what is the area of  $\triangle ACB$ ?

6. The ratio of the areas of two similar pentagons is 32:18. If the perimeter of the larger pentagon is 48 units, what is the perimeter of the smaller pentagon? Show how you arrived at your answer.