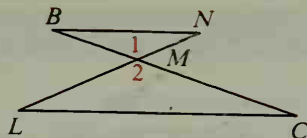
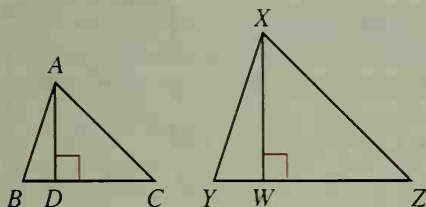


23. Given:  $\angle B \cong \angle C$   
 Prove:  $NM \cdot CM = LM \cdot BM$

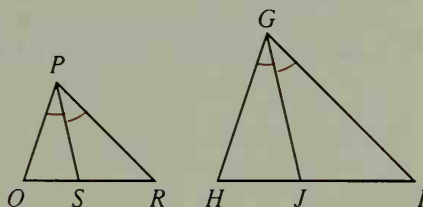


24. Given:  $\overline{BN} \parallel \overline{LC}$   
 Prove:  $BN \cdot LM = CL \cdot NM$

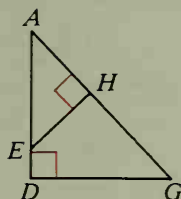
25. Given:  $\triangle ABC \sim \triangle XYZ$ ;  
 $\overline{AD}$  and  $\overline{XW}$  are altitudes.  
 Prove:  $\frac{AD}{XW} = \frac{AB}{XY}$



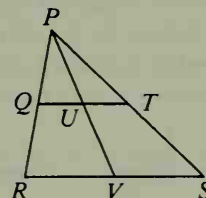
26. Given:  $\triangle PQR \sim \triangle GHI$ ;  
 $\overrightarrow{PS}$  and  $\overrightarrow{GJ}$  are angle bisectors.  
 Prove:  $\frac{PS}{GJ} = \frac{PQ}{GH}$



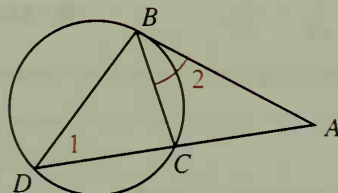
27. Given:  $\overline{AH} \perp \overline{EH}$ ;  $\overline{AD} \perp \overline{DG}$   
 Prove:  $AE \cdot DG = AG \cdot HE$



28. Given:  $\overline{QT} \parallel \overline{RS}$   
 Prove:  $\frac{QU}{RV} = \frac{UT}{VS}$

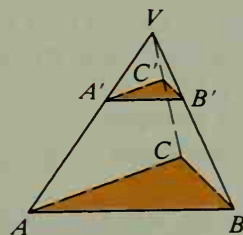


29. Given:  $\angle 1 \cong \angle 2$   
 Prove:  $(AB)^2 = AD \cdot AC$



In the diagram for Exercises 30 and 31, the plane of  $\triangle A'B'C'$  is parallel to the plane of  $\triangle ABC$ .

30.  $VA' = 15$  and  $A'A = 20$   
 a. If  $VC' = 18$ , then  $VC = \underline{\hspace{1cm}}$ .  
 b. If  $VB = 49$ , then  $BB' = \underline{\hspace{1cm}}$ .  
 c. If  $A'B' = 24$ , then  $AB = \underline{\hspace{1cm}}$ .  
 31. If  $VA' = 10$ ,  $VA = 25$ ,  $AB = 20$ ,  $BC = 14$ ,  
 and  $AC = 16$ , find the perimeter of  $\triangle A'B'C'$ .



- C 32. Two vertical poles have heights 6 ft and 12 ft. A rope is stretched from the top of each pole to the bottom of the other. How far above the ground do the ropes cross? (Hint: The lengths  $y$  and  $z$  do not affect the answer.)

