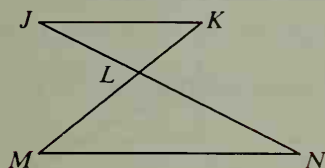
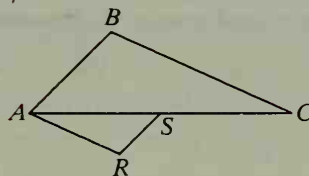


15. Given: $\frac{JL}{NL} = \frac{KL}{ML}$
 Prove: $\angle J \cong \angle N$



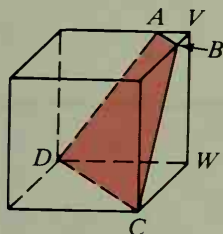
16. Given: $\frac{AB}{SR} = \frac{BC}{RA} = \frac{CA}{AS}$
 Prove: $\overline{BC} \parallel \overline{AR}$



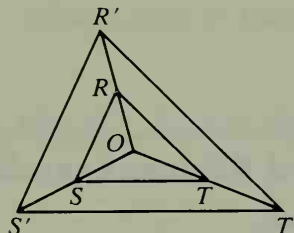
Draw and label a diagram. List, in terms of the diagram, what is given and what is to be proved. Then write a proof.

17. If two triangles are similar, then the lengths of corresponding medians are in the same ratio as the lengths of corresponding sides.
 18. If two quadrilaterals are similar, then the lengths of corresponding diagonals are in the same ratio as the lengths of corresponding sides.
 19. If the vertex angle of one isosceles triangle is congruent to the vertex angle of another isosceles triangle, then the triangles are similar.

20. The faces of a cube are congruent squares.
 The cube shown is cut by plane $ABCD$.
 $VA = VB$ and $VW = 4 \cdot VA$.
 Find, in terms of AB , the length of the median of trap. $ABCD$.



21. Given: $OR' = 2 \cdot OR$;
 $OS' = 2 \cdot OS$;
 $OT' = 2 \cdot OT$
 Prove: $\triangle RST \sim \triangle R'S'T'$

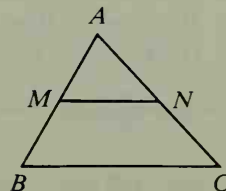


22. Prove Theorem 5-11 on page 178: The segment that joins the midpoints of two sides of a triangle is parallel to the third side and is half as long as the third side.

Given: M is the midpoint of \overline{AB} ;

N is the midpoint of \overline{AC} .

Prove: $\overline{MN} \parallel \overline{BC}$; $MN = \frac{1}{2}BC$



- C 23. Given: $\square WXYZ$
 Prove: $\triangle ATB \sim \triangle A'TB'$
 (Hint: Show that $\frac{AT}{A'T}$ and $\frac{BT}{B'T}$ both equal $\frac{TW}{TY}$.)

