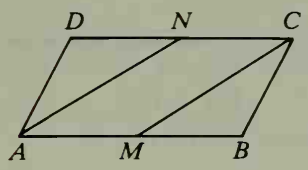
Draw and label a diagram. List what is given and what is to be proved. Then write a two-column proof of the theorem.

B **11.** Theorem 5-4 **12.** Theorem 5-5 **13.** Theorem 5-7

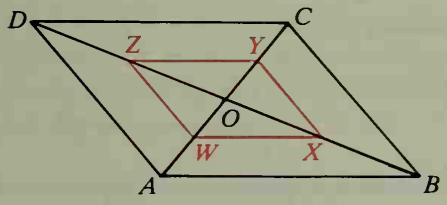
For Exercises 14–18 write paragraph proofs.

14. Given: $\square ABCD$; M and N are the midpoints of $\overline{AB}$ and $\overline{DC}$.
Prove: $AMCN$ is a $\square$.

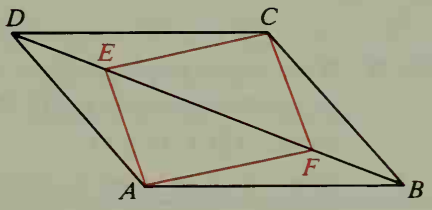
15. Given: $\square ABCD$; $\overline{AN}$ bisects $\angle DAB$; $\overline{CM}$ bisects $\angle BCD$.
Prove: $AMCN$ is a $\square$.



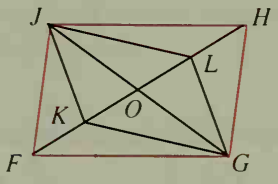
16. Given: $\square ABCD$; W, X, Y, Z are midpoints of $\overline{AO}$, $\overline{BO}$, $\overline{CO}$, and $\overline{DO}$.
Prove: $WXYZ$ is a $\square$.



17. Given: $\square ABCD$; $DE = BF$
Prove: $AFCE$ is a $\square$.

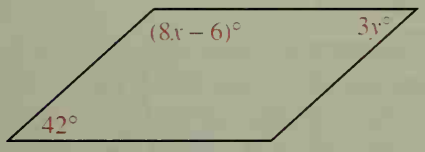


18. Given: $\square KGLJ$; $FK = HL$
Prove: $FGHJ$ is a $\square$.

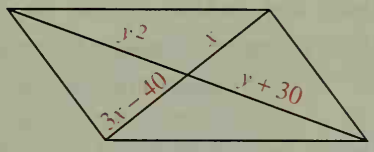


What values must x and y have to make the quadrilateral a parallelogram?

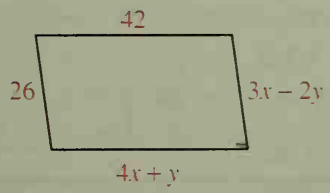
19.



20.



21.



22.