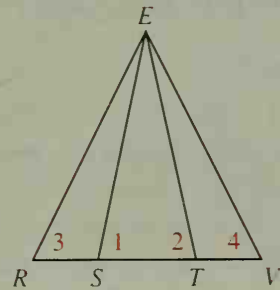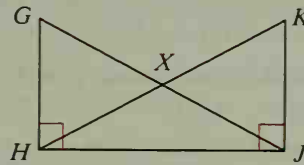**Complete.**

11. If $\angle 3 \cong \angle 4$, then which segments must be congruent?

12. If $\triangle REV$ is an equiangular triangle, then $\triangle REV$ is also a(n) __?__ triangle.

13. If $\overline{ES} \cong \overline{ET}$, $m\angle 1 = 75$, and $m\angle 2 = 3x$, then $x = $ __?__.

14. If $\angle 1 \cong \angle 2$, $ES = 3y + 5$, and $ET = 25 - y$, then $y = $ __?__.

4-4

Write proofs in two-column form.

15. Given: $\overline{GH} \perp \overline{HJ}$; $\overline{KJ} \perp \overline{HJ}$;
$\qquad \angle G \cong \angle K$
Prove: $\triangle GHJ \cong \triangle KJH$

16. Given: $\overline{GH} \perp \overline{HJ}$; $\overline{KJ} \perp \overline{HJ}$;
$\qquad \overline{GJ} \cong \overline{KH}$
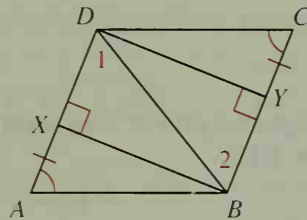Prove: $\overline{GH} \cong \overline{KJ}$

4-5

17. Give the reason for each key step of the proof.
$\qquad$ Given: $\overline{AX} \cong \overline{CY}$; $\angle A \cong \angle C$;
$\qquad\qquad \overline{BX} \perp \overline{AD}$; $\overline{DY} \perp \overline{BC}$
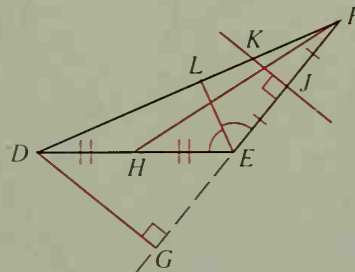$\qquad$ Prove: $\overline{AD} \parallel \overline{BC}$

1. $\triangle ABX \cong \triangle CDY$
2. $\overline{BX} \cong \overline{DY}$
3. $\triangle BDX \cong \triangle DBY$
4. $\angle 1 \cong \angle 2$
5. $\overline{AD} \parallel \overline{BC}$

4-6

18. Refer to $\triangle DEF$ and name each of the following:
a. an altitude
b. a median
c. the perpendicular bisector of a side of the triangle

4-7

19. Point G lies on the perpendicular bisector of $\overline{EF}$. Write the theorem that justifies the statement that $GE = GF$.

20. $\triangle ABC$ and $\triangle ABD$ are congruent right triangles with common hypotenuse $\overline{AB}$. Write the theorem that allows you to conclude that point B lies on the bisector of $\angle DAC$.