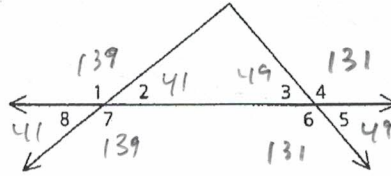


- 1 Given: $\angle 2$ is comp. to $\angle 3$.
 $\angle 4 = 131^\circ$



Find the measure of each of the following angles.

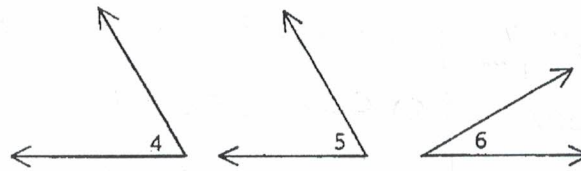
- a $\angle 3$ 49° c $\angle 5$ 49° e $\angle 1$ 139° g $\angle 7$ 139°
 b $\angle 6$ 131° d $\angle 2$ 41° f $\angle 8$ 41°

- 4 One of two supplementary angles is four times the other. Find the larger angle.

$ANGLE = x$ $180 - x = 4x$ $ANGLE = 36^\circ$
 $SUPP = 180 - x$ $5x = 180$ $SUPP = 180 - 36 = 144^\circ$
 $x = 36$

- 3 Given: $\angle 4$ is comp. to $\angle 6$.
 $\angle 5$ is comp. to $\angle 6$.

Prove: $\angle 4 \cong \angle 5$

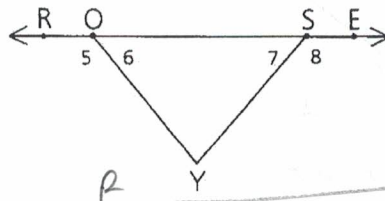


3 steps

S	R
1) $\angle 4$ comp. $\angle 6$	1) GIVEN
2) $\angle 5$ comp. $\angle 6$	2) GIVEN
3) $\angle 4 \cong \angle 5$	3) IF 2 ANGLES ARE COMP TO SAME ANGLE, THEN THEY ARE \cong . ($\angle 4 + \angle 6$) ($\angle 5 + \angle 6$)

- 8 Given: $\angle 6 \cong \angle 7$

Prove: $\angle 5 \cong \angle 8$



4 steps

S	R
1) $\angle 6 \cong \angle 7$	1) GIVEN
2) $\angle 5$ SUPP. $\angle 6$	2) IF 2 ANGLES FORM A STRAIGHT ANGLE, THEN THEY ARE SUPP.
3) $\angle 7$ SUPP. $\angle 8$	3) SAME AS STEP 2.
4) $\angle 5 \cong \angle 8$	4) IF 2 ANGLES ARE SUPP. TO \cong ANGLE, THEN THEY ARE \cong . ($\angle 5 + \angle 6$) ($\angle 7 + \angle 8$)

- 5 One of two complementary angles is 20° larger than the other.
Find the measure of each.

ANGLE = x

COMP = $90 - x$

$90 - x = x + 20$

$-2x = -70$

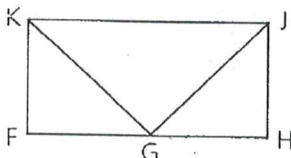
$x = 35$

ANGLE = 35°

COMP = $90 - 35 = 55^\circ$

- 7 Given: $\angle FKJ$ is a right \angle .
 $\angle HJK$ is a right \angle .
 $\angle GKJ \cong \angle GJK$

Conclusion: $\angle FKG \cong \angle HJG$

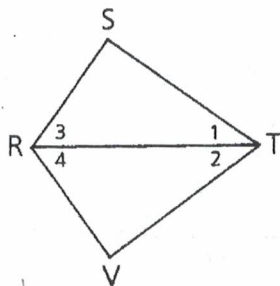


6 steps

- S
- 1) $\angle FKT$ RT. ANGLE
 - 2) $\angle HJK$ RT. ANGLE
 - 3) $\angle GKT \cong \angle GJK$
 - 4) $\angle FKG$ COMP. $\angle GKT$ LINK
 - 5) $\angle HJG$ COMP. $\angle GJK$
 - 6) $\angle FKG \cong \angle HJG$

- R
- 1) GIVEN
 - 2) GIVEN
 - 3) GIVEN
 - 4) IF 2 ANGLES FORM A RT. ANGLE, THEN THEY ARE COMP.
 - 5) SAME AS STEP 4.
 - 6) IF 2 ANGLES ARE COMP. TO \cong ANGLES, THEN THEY ARE \cong .

- 16 Given: $\angle 1$ is comp. to $\angle 4$.
 $\angle 2$ is comp. to $\angle 3$.
 \overrightarrow{RT} bisects $\angle SRV$.
Prove: \overrightarrow{TR} bisects $\angle STV$.



6 steps

- S
- 1) $\angle 1$ COMP. $\angle 4$
 - 2) $\angle 2$ COMP. $\angle 3$
 - 3) \overrightarrow{RT} BISECTS $\angle SRV$
 - 4) $\angle 3 \cong \angle 4$
 - 5) $\angle 1 \cong \angle 2$
 - 6) \overrightarrow{TR} BISECTS $\angle STV$

- R
- 1) GIVEN
 - 2) GIVEN
 - 3) GIVEN
 - 4) IF A RAY BISECTS AN ANGLE, THEN IT DIVIDES IT INTO 2 \cong ANGLES
 - 5) IF 2 ANGLES ARE COMP. TO \cong ANGLES, THEN THEY ARE \cong .
 - 6) IF A RAY DIVIDES AN ANGLE INTO 2 \cong ANGLES, THEN IT BISECTS THE ANGLE

(CONVERSE OF STEP 4)