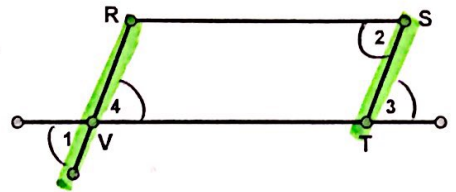


Key

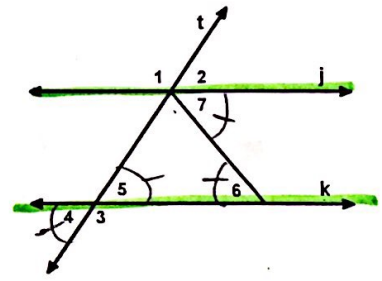
10. Given: $\overline{RV} \parallel \overline{TS}$ & $\angle 1 \cong \angle 2$
 Prove: $\overline{RS} \parallel \overline{TV}$



- Statements
1. $\overline{RV} \parallel \overline{TS}$
 2. $\angle 3 \cong \angle 4$
 3. $\angle 1 \cong \angle 4$
 4. $\angle 1 \cong \angle 3$
 5. $\angle 1 \cong \angle 2$
 6. $\angle 2 \cong \angle 3$
 7. $\overline{RS} \parallel \overline{TV}$

- Reasons
1. given
 2. If \parallel , then corr. \angle s \cong
 3. vertical angle thm.
 4. transitive prop. If \parallel , then alt. ext. \angle s \cong
 5. given
 6. transitive
 7. If alt. int. \angle s \cong , then \parallel .

11. Given: $\angle 4 \cong \angle 7$ & $\angle 5 \cong \angle 6$
 Prove: $j \parallel k$

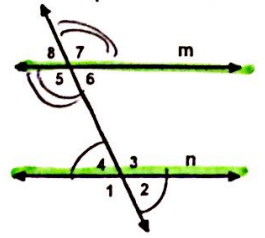


- Statements
1. $\angle 4 \cong \angle 7$
 2. $\angle 4 \cong \angle 5$
 3. $\angle 5 \cong \angle 7$
 4. $\angle 5 \cong \angle 6$
 5. $\angle 6 \cong \angle 7$
 6. $j \parallel k$

- Reasons
1. given
 2. vertical \angle thm.
 3. transitive prop.
 4. given
 5. transitive prop.
 6. If alt. int. \angle s \cong , then \parallel .

Names: Key

Period: 2 4 7
11/9/17



12. Given: $m \parallel n$
Prove: $\angle 2$ & $\angle 7$ are supp.

Statements

1. $m \parallel n$
2. $\angle 4$ & $\angle 5$ supp.
3. $m\angle 4 + m\angle 5 = 180^\circ$
4. $\angle 5 \cong \angle 7$ & $\angle 2 \cong \angle 4$
5. $m\angle 5 = m\angle 7$; $m\angle 2 = m\angle 4$
6. $m\angle 2 + m\angle 7 = 180^\circ$
7. $\angle 2$ & $\angle 7$ are supp.

Reasons

1. given
2. If \parallel , then s.i. int. \angle s supp.
3. Def. of supp.
4. Vertical Angle Thm.
5. Def. of congruence
6. substitution
7. Def. of supplementary

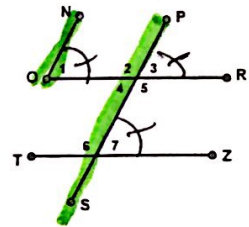
13. Given: $\overline{NO} \parallel \overline{PS}$ & $\angle 1 \cong \angle 7$
Prove: $\overline{OR} \parallel \overline{TZ}$

Statements

1. $\angle 1 \cong \angle 7$
2. $\overline{NO} \parallel \overline{PS}$
3. $\angle 1 \cong \angle 3$
4. $\angle 3 \cong \angle 7$
5. $\overline{OR} \parallel \overline{TZ}$

Reasons

1. Given
2. Given
3. If \parallel , then corr. \angle s \cong
4. substitution
5. If corr. \angle s \cong , then \parallel .



14. Given: $\angle 1$ & $\angle 2$ are supp.
Prove: $g \parallel h$

Statements

1. $\angle 1$ & $\angle 2$ are supp.
2. $\angle 1$ & $\angle 3$ are linear pair
3. $\angle 1$ & $\angle 3$ are supp.
4. $\angle 2 \cong \angle 3$
5. $g \parallel h$

Reasons

1. given
2. given in diagram
3. If L.P. \rightarrow supp. (OR supplement Thm.)
4. \cong supplement Thm.
5. If corr. \angle s \cong , then \parallel .

