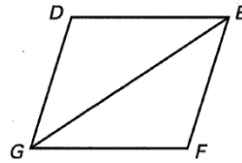


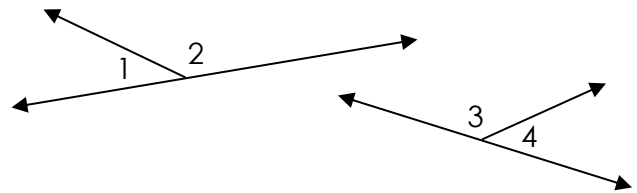
Complete the guided proofs below, using proper notation and properties.

1. Given: $DG = 8$, $GF = 8$, $\overline{GF} \cong \overline{EF}$
 Prove: $\overline{DG} \cong \overline{EF}$



Statements	Reasons
1.	1. Given
2. $DG = GF$	2.
3. $\overline{DG} \cong \overline{GF}$	3.
4. $\overline{GF} \cong \overline{EF}$	4.
5. $\overline{DG} \cong \overline{EF}$	5.

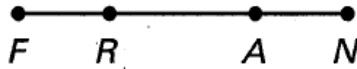
2. Given: $\angle 1$ and $\angle 2$ are a linear pair.
 $\angle 3$ and $\angle 4$ are a linear pair
 $\angle 1$ and $\angle 3$ are supplementary angles.
 Prove: $\angle 2$ and $\angle 4$ are supplementary



Statements	Reasons
1. $\angle 1$ and $\angle 2$ are a linear pair	1.
2. $\angle 1$ and $\angle 2$ are supplementary angles	2.
3.	3. Definition of Supplementary Angles
4. $\angle 1$ and $\angle 3$ are supplementary angles.	4.
5. $m\angle 1 + m\angle 3 = 180$	5.
6. $m\angle 1 + m\angle 3 = m\angle 1 + m\angle 2$	6.
7.	7. Subtraction Property of Equality
8. $\angle 3$ and $\angle 4$ are a linear pair	8.
9.	9. Definition of a Linear Pair
10. $m\angle 3 + m\angle 4 = 180$	10.
11.	11. Substitution Property of Equality
12.	12.

3. Given: $\overline{FR} \cong \overline{AN}$

Prove: $\overline{FA} \cong \overline{RN}$



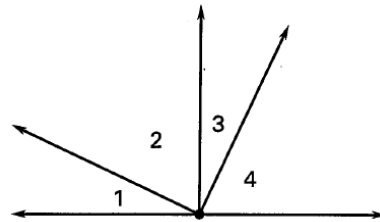
Statements	Reasons
1.	1.
2.	2. Definition of \cong segments.
3. $RA = RA$	3.
4. $FR + RA = AN + RA$	4.
5. $FR + RA = FA$	5.
6. $AN + RA = RN$	6.
7. $FA = RN$	7.
8.	8.

4. Given: $\angle 1$ and $\angle 2$ are complementary.

$$\angle 1 \cong \angle 3$$

$$\angle 2 \cong \angle 4$$

Prove: $\angle 3$ and $\angle 4$ are complementary



Statements	Reasons
1.	1. Given
2. $m\angle 1 + m\angle 2 = 90^\circ$	2.
3.	3. Given
4.	4. Definition of Congruent Angles
5. $m\angle 3 + m\angle 2 = 90^\circ$	5.
6. $m\angle 3 + m\angle 4 = 90^\circ$	6.
7.	7.