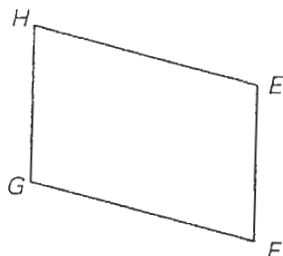
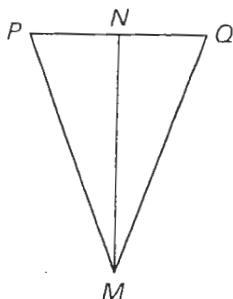


Mark the diagram with the given information.

1. $GH = 4, EF = 4$
 $HE = 6, GF = 6$



2. N is the midpoint of PQ .



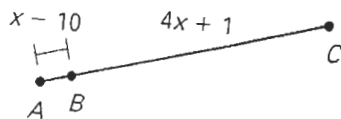
3. $AC = BD$



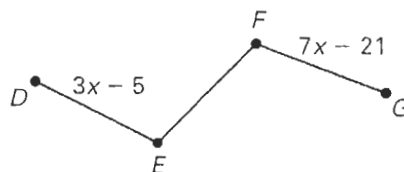
Solve for the variable using the given information.

4.

$AC = 91$



5. $\overline{DE} \cong \overline{EF}, \overline{EF} \cong \overline{FG}$



Complete the proof.

6. Given: $AD = 9, BC = 9, \overline{BC} \cong \overline{CD}$

Prove: $\overline{AD} \cong \overline{CD}$

1. $AD = 9$

1. _____

2. $BC = 9$

2. _____

3. $AD = BC$

3. _____

4. $\overline{AD} \cong \overline{BC}$

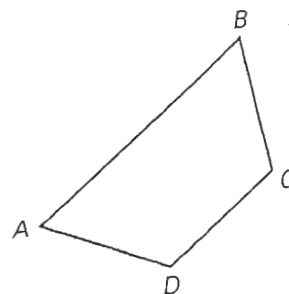
4. _____

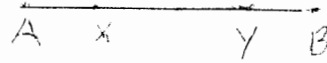
5. $\overline{BC} \cong \overline{CD}$

5. _____

6. $\overline{AD} \cong \overline{CD}$

6. _____





7. Given: X is the midpoint of \overline{AY} , and Y is the midpoint of \overline{XB}
 Prove: $\overline{AX} \cong \overline{YB}$

- | | |
|--|----------|
| 1. X is the midpoint of \overline{AY} | 1. _____ |
| 2. $AX = XY$ | 2. _____ |
| 3. Y is the midpoint of \overline{XB} \overline{XB} | 3. _____ |
| 4. $XY = YB$ | 4. _____ |
| 5. $AX = YB$ | 5. _____ |
| 6. $\overline{AX} \cong \overline{YB}$ | 6. _____ |

Complete the following

8. A _____ is a statement you can prove.
9. In a *two-column proof*, the _____ step in the proof should match the Prove statement.

Name the property, postulate, or definition that justifies each statement.

10. If $AB = CD$, then $AB + BC = CD + BC$. _____
11. If $AC = BD$ then $\overline{AC} \cong \overline{BD}$. _____
12. If $CD = DE + DE$, then $CD = 2DE$ _____
13. If $AB + BC = AC$ and $AB = EF$, then $EF + BC = AC$. _____
14. If C is between A and D, then $AC + CD = AD$ _____
15. If $RS = UV$, and $ST = TU$, then $RS + ST = TU + UV$ _____