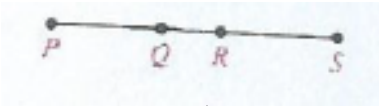


Fill in the missing statements or reasons for each proof.

1. **Given:** $\overline{PR} \cong \overline{QS}$
Prove: $\overline{PQ} \cong \overline{RS}$



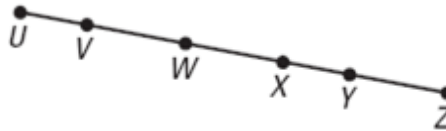
Statements	Reasons
1. $\overline{PR} \cong \overline{QS}$	1.
2. $PR = QS$	2.
3. $PQ + QR = PR$	3.
4.	4. Segment (+) Post
5. $PQ + QR = QR + RS$	5.
6.	6. Subtraction POE
7. $\overline{PQ} \cong \overline{RS}$	7.

2. **Given:** $\overline{EF} \cong \overline{GH}$
Prove: $\overline{EG} \cong \overline{FH}$



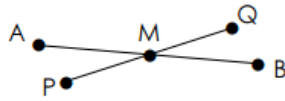
Statements	Reasons
1. $\overline{EF} \cong \overline{GH}$	1.
2.	2. Def \cong seg
3. $FG = FG$	3.
4.	4. (+) POE
5. $EF + FG = EG$	5.
6.	6. Seg (+) post
7.	7. Substitution
8. $\overline{EG} \cong \overline{FH}$	8.

3. **Given:** $\overline{UV} \cong \overline{XY}$, $\overline{VW} \cong \overline{WX}$, $\overline{WX} \cong \overline{YZ}$
Prove: $\overline{UW} \cong \overline{XZ}$



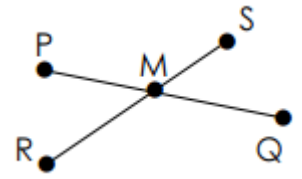
Statements	Reasons
1.) $\overline{UV} \cong \overline{XY}$, $\overline{VW} \cong \overline{WX}$, $\overline{WX} \cong \overline{YZ}$	1.)
2.) $UV = XY$, $VW = WX$, $WX = YZ$	2.)
3.) $UV + VW = UW$, $XY + YZ = XZ$	3.)
4.) $XY + WX = UW$, $XY + WX = XZ$	4.)
5.) $UW = XZ$	5.)
6.) $\overline{UW} \cong \overline{XZ}$	6.)

4. **Given:** $MB = MQ$
Prove: $AB = AM + MQ$



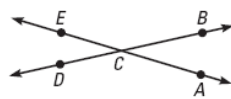
Statements	Reasons
1.	1. Given
2. $AM + MB = AB$	2.
3.	3. Symmetric POE
4. $AB = AM + MQ$	4.

5. **Given:** $\overline{PM} \cong \overline{MS}$
 \overline{RS} bisects \overline{PQ}
Prove: $\overline{MS} \cong \overline{MQ}$



Statements	Reasons
1. $\overline{PM} \cong \overline{MS}$	1.
2.	2. Given
3. $\overline{PM} \cong \overline{MQ}$	3.
4. $\overline{MS} \cong \overline{MQ}$	4.

6. **Given:** $\overline{AE} \cong \overline{BD}$, $\overline{CD} \cong \overline{CE}$
Prove: $\overline{AC} \cong \overline{BC}$



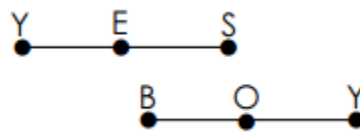
Statements	Reasons
1.	1. Given
2. $AE = BD$ & $CD = CE$	2.
3. $AE = AC + CE$ $BD = BC + CD$	3.
4. $AC + CE = BC + CD$	4.
5. $AC + CE = BC + CE$	5.
6. $AC = BC$	6.
7.	7. Def \cong Seg

7. **Given:** X is midpoint of \overline{RS}
 $MX = XS$
Prove: $\overline{MX} = \overline{RX}$



Statements	Reasons
1. X is midpoint of \overline{RS} $MX = XS$	1.
2. $\overline{RX} \cong \overline{XS}$	2.
3.	3. Def \cong seg
4. $\overline{RX} \cong \overline{MX}$	4.
5. $\overline{MX} \cong \overline{RX}$	5.

8. **Given:** E is midpoint of \overline{YS}
 O is midpoint of \overline{BY}
 $\overline{YE} \cong \overline{BO}$
Prove: $\overline{ES} \cong \overline{OY}$



Statements	Reasons
1. E is midpoint of \overline{YS}	1.
2.	2. Def of midpt
3. $\overline{YE} \cong \overline{BO}$	3.
4.	4. Transitive
5.	5. Given
6. $\overline{BO} \cong \overline{OY}$	6.
7. $\overline{ES} \cong \overline{OY}$	7.