

Use an Equality Property to make a true conclusion and state which postulate you used.

1. Given: $AM + SR = CD + SR$

2. Given: $m\angle 2 = m\angle 4$

$m\angle 5 = m\angle 6 + m\angle 4$

Conclusion: _____

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Property: _____

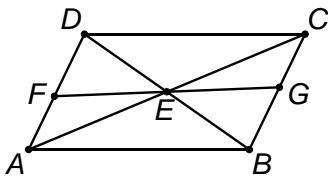
Property: _____

Complete a Two-column proof.

3. Given: $\overline{AD} \cong \overline{BC}$

$\overline{FD} \cong \overline{BG}$

Prove: $\overline{AF} \cong \overline{CG}$



Statements	Reasons
1. $\overline{AD} \cong \overline{BC}$	1.
2. $\overline{FD} \cong \overline{BG}$	2.
3. $AF + FD = AD$ $CG + BG = BC$	3.
4. $AF + FD = CG + BG$	4.
5. $AF + FD = CG + FD$	5.
6. $AF = CG$	6.

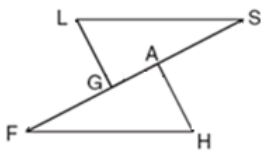
4. Given: \overline{FGAS}

$\overline{FG} \cong \overline{SA}$

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

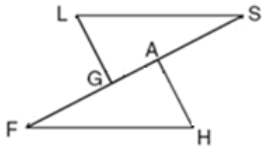
Hint: Is there a common part?

Is this addition or subtraction method?



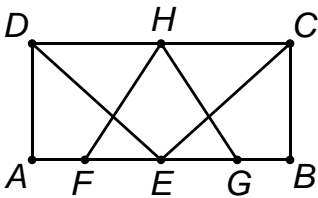
5. Given: \overline{FGAS}
 $\overline{FA} \cong \overline{SG}$

Prove: $\overline{FG} \cong \overline{SA}$

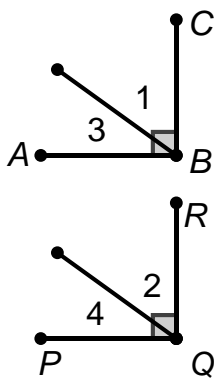


Hint: Is there a common part?
 Is this addition or subtraction?

6. Given: \overline{AFEGB}
 E midpoint of \overline{FG}
 $\overline{AF} \cong \overline{GB}$
 Prove: $\overline{AE} \cong \overline{BE}$



7. Prove: "If 2 angles are congruent, then their complements are congruent."



Statements	Reasons
1. $m\angle ABC = 90^\circ$ and $m\angle PQR = 90^\circ$ $\angle 1 \cong \angle 2$	1. Given
2. $m\angle ABC = m\angle PQR$	2.
3. $\angle 1$ comp. to $\angle 3$ $\angle 2$ comp. to $\angle 4$	3.
4. $m\angle 1 + m\angle 3 = 90$ $m\angle 2 + m\angle 4 = 90$	4.
5. $m\angle 1 + m\angle 3 = m\angle 2 + m\angle 4$	5.
6. $m\angle 1 + m\angle 3 = m\angle 1 + m\angle 4$	6.
7. $\angle 3 \cong \angle 4$	7.