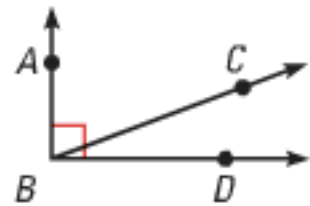


Name: _____
 Period: _____

Review 2.6
 Geometry

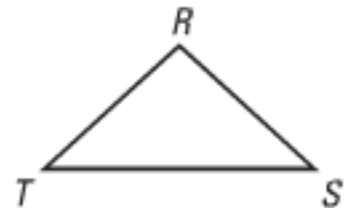
Use the given information and diagram to complete the proof.



1. **Given:** Point C is in the interior of $\angle ABD$.
 $\angle ABD$ is a right angle.
Prove: $\angle ABC$ and $\angle CBD$ are complementary.

STATEMENTS	REASONS
1. $\angle ABD$ is a right angle.	1. Given
2. $m\angle ABD = 90^\circ$	2. <u>?</u>
3. <u>?</u>	3. Given
4. $m\angle ABD = m\angle ABC + m\angle CBD$	4. <u>?</u>
5. <u>?</u> = $m\angle ABC + m\angle CBD$	5. Substitution Property of Equality
6. <u>?</u>	6. Definitior

2. **Given:** $RT = 5, RS = 5, \overline{RT} \cong \overline{TS}$
Prove: $\overline{RS} \cong \overline{TS}$



STATEMENTS	REASONS
1. $RT = 5, RS = 5, \overline{RT} \cong \overline{TS}$	1.
2. $RS = RT$	2.
3. $RT = TS$	3.
4. $RS = TS$	4.
5. $\overline{RS} \cong \overline{TS}$	5.

3. **Given:** M is the midpoint of \overline{AB} .
Prove: $AB = 2 \cdot AM$



STATEMENTS

REASONS

1. M is the midpoint of \overline{AB} .
2. $\overline{AM} \cong \overline{MB}$
3. $AM = MB$
4. $AM + MB = AB$
5. $AM + AM = AB$
6. $2AM = AB$

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

4. **Given:** $AC = AB + AB + AB$
Prove: $AB = \frac{1}{2}BC$



Statements	Reasons
1. $AC = AB + AB + AB$	1. Given
2. $AB + BC = AC$	2.
3. $AB + AB + AB = AB + BC$	3.
4. $AB + AB = BC$	4.
5. $2AB = BC$	5. Distributive Property
6. $AB = \frac{1}{2}BC$	6.

Use the information and diagram to write a two-column proof.

5. **Given:** $\overline{XY} \cong \overline{YZ} \cong \overline{ZX}$
Prove: The perimeter of $\triangle XYZ$ is $3 \cdot XY$



Statements	Reasons