1.

Statements	Proof
$4(x+3)=20$	Given

2.

Statements	Proof
$\frac{4(x-3)}{3}=20$	Given

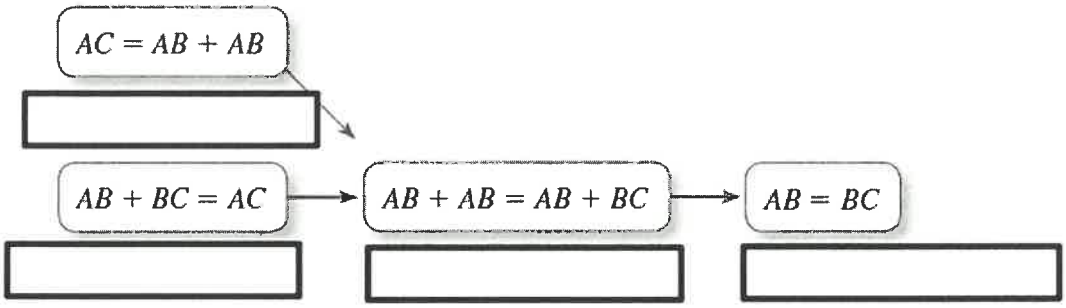
4.

Work with a partner. Match each reason with the correct step in the flowchart.

Given $AC = AB + AB$

Prove $AB = BC$





A. Segment Addition Postulate (Post. 1.2) **B.** Given

C. Transitive Property of Equality **D.** Subtraction Property of Equality

5.

Given T is the midpoint of $\overline{SU}$

Prove $x = 5$



STATEMENTS	REASONS

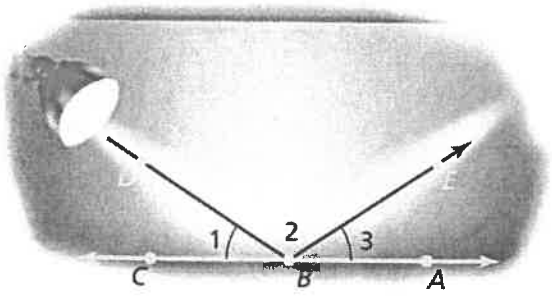
3. Fill in the two-column algebra proof.

Given: $5y + 4 = 2(y + 3) + 1$

Prove: $x = 1$

Statements	Reasons
$5y + 4 = 2(y + 3) + 1$	Given
A.	Distributive Property
B.	F.
C.	G.
D.	H.
E.	I.

6. You reflect the beam of a spotlight off a mirror lying flat on a stage, as shown. Determine whether $m\angle DBA = m\angle EBC$.



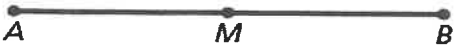
STATEMENTS	REASONS

8.

Prove this property of midpoints: If you know that M is the midpoint of $\overline{AB}$ prove that AB is two times AM and AM is one-half AB.

Given M is the midpoint of $\overline{AB}$

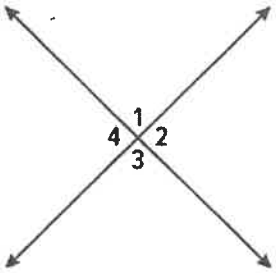
Prove $AB = 2AM$, $AM = \frac{1}{2}AB$



STATEMENTS	REASONS

7.

Prove: $\angle 1$ and $\angle 2$ are right angles.



Given $\angle 1 \cong \angle 4$

STATEMENTS	REASONS