

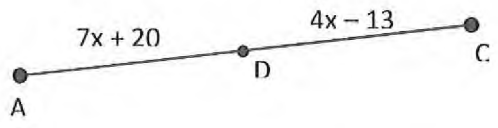
Introduction to Proofs Independent Practice

Directions: Complete each proof. You may not use all of the spaces given.

1. Given: $8x - 5 = 2x + 1$
Prove: $x = 1$

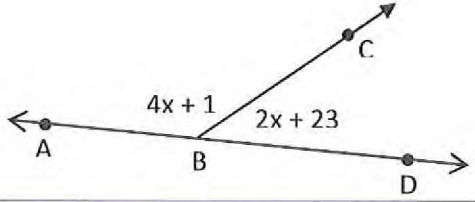
Statement	Reason
	Given
$6x - 5 = 1$	
	Addition Property of Equality

2. Given: D is the midpoint of AC.
Prove: $x = -11$



Statement	Reason
	Given
$AD = DC$	
	Substitution Property of Equality

3. Given: $\angle ABC$ and $\angle CBD$ form a linear pair.
Prove: $x = 26$



Statement	Reason
	Given
	Definition of Linear Pair
	Simplify

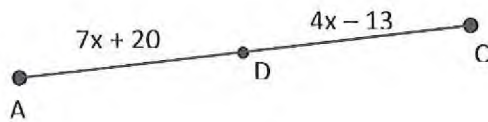
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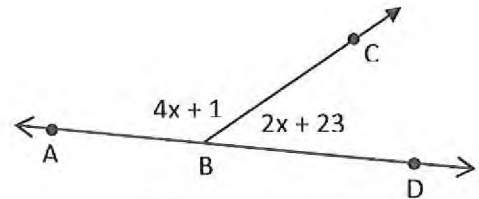
Statement	Reason
$8x - 5 = 2x + 1$	Given
$6x - 5 = 1$	Subtraction Prop of Equality
$6x = 6$	Addition Property of Equality
$x = 1$	Division Prop of Equality

2. Given: D is the midpoint of AC.
Prove: $x = -11$



Statement	Reason
D is the midpoint of AC	Given
$AD = DC$	definition of Midpoint
$7x + 20 = 4x - 13$	Substitution Property of Equality
$3x + 20 = -13$	Subtraction Prop of Equality
$3x = -33$	Subtraction Prop of Equality
$x = -11$	Division Prop of Equality

3. Given: $\angle ABC$ and $\angle CBD$ form a linear pair.
Prove: $x = 26$



Statement	Reason
$\angle ABC$ & $\angle CBD$ form a linear pair	Given
$m\angle ABC + m\angle CBD = 180^\circ$	Definition of Linear Pair
$4x + 1 + 2x + 23 = 180$	Substitution Prop of Equality
$6x + 24 = 180$	Simplify
$6x = 156$	Subtraction Prop of Equality
$x = 26$	Division Prop of Equality