### Lesson 6 Practice Problems

1. Which of the following constructions would help to construct a line passing through point $C$ that is perpendicular to the line $AB$?
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	1. Construction of an equilateral triangle with one side $AB$
	2. Construction of a hexagon with one side $BC$
	3. Construction of a perpendicular bisector through $C$
	4. Construction of a square with one side $AB$
1. Two distinct lines, $ℓ$ and $m$, are each perpendicular to the same line $n$. Select **all** the true statements.
	1. Lines $ℓ$ and $m$ are perpendicular.
	2. Lines $ℓ$ and $n$ are perpendicular.
	3. Lines $m$ and $n$ are perpendicular.
	4. Lines $ℓ$ and $m$ are parallel.
	5. Lines $ℓ$ and $n$ are parallel.
	6. Lines $m$ and $n$ are parallel.
2. This diagram is a straightedge and compass construction of the bisector of angle $BAC$. Only angle $BAC$ is given. Explain the steps of the construction in order. Include a step for each new circle, line, and point.
* 
* (From Unit 1, Lesson 5.)
1. This diagram is a straightedge and compass construction of a line perpendicular to line $AB$ passing through point $C$. Which segment has the same length as segment $EA$?
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	1. $EC$
	2. $ED$
	3. $BE$
	4. $BD$
* (From Unit 1, Lesson 5.)
1. This diagram is a straightedge and compass construction. Which triangle is equilateral? Explain how you know.
* 
* (From Unit 1, Lesson 4.)
1. In the construction, $A$ is the center of one circle, and $B$ is the center of the other. Name the segments in the diagram that have the same length as segment $AB$.
* 
*
* (From Unit 1, Lesson 2.)
1. This diagram is a straightedge and compass construction. $A$ is the center of one circle, and $B$ is the center of the other.
	1. Name a pair of perpendicular line segments.
	2. Name a pair of line segments with the same length.
* 
* (From Unit 1, Lesson 3.)
1. $A$, $B$, and $C$ are the centers of the 3 circles. Select **all** the segments that are congruent to $AB$.
* 
	1. $HF$
	2. $HA$
	3. $CE$
	4. $CD$
	5. $BD$
	6. $BF$
* (From Unit 1, Lesson 4.)



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