### Lesson 1 Practice Problems

1. Find the values of $x,y,$ and $z$.
* 
1. Give an example from the image of each kind of segment.
	1. a diameter
	2. a chord that is not a diameter
	3. a radius
* 
1. Identify whether each statement must be true, could possibly be true, or definitely can’t be true.
	1. A diameter is a chord.
	2. A radius is a chord.
	3. A chord is a diameter.
	4. A central angle measures 90$​^{∘}$.
2. Write an equation of the altitude from vertex $A$.
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* (From Unit 6, Lesson 17.)
1. Triangle $ABC$ has vertices at $\left(5,0\right),\left(1,6\right),$ and $\left(9,3\right)$. What is the point of intersection of the triangle’s medians?
	1. The medians do not intersect in a single point.
	2. $\left(3,3\right)$
	3. $\left(5,3\right)$
	4. $\left(3,4.5\right)$
* (From Unit 6, Lesson 16.)
1. Consider the parallelogram with vertices at $\left(0,0\right),\left(8,0\right),\left(4,6\right),$ and $\left(12,6\right)$. Where do the diagonals of this parallelogram intersect?
* (From Unit 6, Lesson 15.)
1. Lines $ℓ$ and $p$ are parallel. Select **all** true statements.
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	1. Triangle $ADB$ is congruent to triangle $CEF$.
	2. The slope of line $ℓ$ is equal to the slope of line $p$.
	3. Triangle $ADB$ is similar to triangle $CEF$.
	4. $sin\left(A\right)=sin\left(C\right)$
	5. $cos\left(B\right)=sin\left(C\right)$
* (From Unit 6, Lesson 10.)
1. Mai wrote a proof that triangle $AED$ is congruent to triangle $CEB$. Mai's proof is incomplete. How can Mai fix her proof?
* We know side $AE$ is congruent to side $CE$ and angle $A$ is congruent to angle $C$. By the Angle-Side-Angle Triangle Congruence Theorem, triangle $AED$ is congruent to triangle $CEB$.
* $∠A≅∠C,\overset{¯}{AE}≅\overset{¯}{CE}$
* 
* (From Unit 2, Lesson 7.)



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