### Lesson 12 Practice Problems

* 1. What is the volume of a cube with a side length of
		1. 4 centimeters?
		2. $\sqrt[3]{11}$ feet?
		3. $s$ units?
	2. What is the side length of a cube with a volume of
		1. 1,000 cubic centimeters?
		2. 23 cubic inches?
		3. $v$ cubic units?
1. Write an equivalent expression that doesn’t use a cube root symbol.
	1. $\sqrt[3]{1}$
	2. $\sqrt[3]{216}$
	3. $\sqrt[3]{8000}$
	4. $\sqrt[3]{\frac{1}{64}}$
	5. $\sqrt[3]{\frac{27}{125}}$
	6. $\sqrt[3]{0.027}$
	7. $\sqrt[3]{0.000125}$
2. Find the distance between each pair of points. If you get stuck, try plotting the points on graph paper.
	1. $X=\left(5,0\right)$ and $Y=\left(-4,0\right)$
	2. $K=\left(-21,-29\right)$ and $L=\left(0,0\right)$
* (From Unit 8, Lesson 11.)
1. Here is a 15-by-8 rectangle divided into triangles. Is the shaded triangle a right triangle? Explain or show your reasoning.
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* (From Unit 8, Lesson 9.)
1. Here is an equilateral triangle. The length of each side is 2 units. A height is drawn. In an equilateral triangle, the height divides the opposite side into two pieces of equal length.
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	1. Find the exact height.
	2. Find the area of the equilateral triangle.
	3. (Challenge) Using $x$ for the length of each side in an equilateral triangle, express its area in terms of $x$.
* (From Unit 8, Lesson 10.)



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