### Lesson 9 Practice Problems

1. Match each number to its name.
	1. 1,000,000
	2. 0.01
	3. 1,000,000,000
	4. 0.000001
	5. 0.001
	6. 10,000
	* One hundredth
	* One thousandth
	* One millionth
	* Ten thousand
	* One million
	* One billion
2. Write each expression as a multiple of a power of 10:
	1. 42,300
	2. 2,000
	3. 9,200,000
	4. Four thousand
	5. 80 million
	6. 32 billion
3. Each statement contains a quantity. Rewrite each quantity using a power of 10.
	1. There are about 37 trillion cells in an average human body.
	2. The Milky Way contains about 300 billion stars.
	3. A sharp knife is 23 millionths of a meter thick at its tip.
	4. The wall of a certain cell in the human body is 4 nanometers thick. (A nanometer is one billionth of a meter.)
4. A fully inflated basketball has a radius of 12 cm. Your basketball is only inflated halfway. How many more cubic centimeters of air does your ball need to fully inflate? Express your answer in terms of $π$. Then estimate how many cubic centimeters this is by using 3.14 to approximate $π$.
* (From Unit 6, Lesson 24.)
1. Solve each of these equations. Explain or show your reasoning.
* $2\left(3−2c\right)=30$
* $3x−2=7−6x$
* $31=5\left(b−2\right)$
* (From Unit 4, Lesson 13.)
1. Graph the line going through $\left(-6,1\right)$ with a slope of $\frac{-2}{3}$ and write its equation.
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* (From Unit 5, Lesson 9.)
1. On a map of Chicago, 1 cm represents 100 m. Select **all** statements that express the same scale.
	1. 5 cm on the map represents 50 m in Chicago.
	2. 1 mm on the map represents 10 m in Chicago.
	3. 1 km in Chicago is represented by 10 cm the map.
	4. 100 cm in Chicago is represented by 1 m on the map.
* (From Unit 2, Lesson 5.)



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