

## Lesson 9 Practice Problems

1. Match each number to its name.

- |                  |                  |
|------------------|------------------|
| a. 1,000,000     | ○ One hundredth  |
| b. 0.01          | ○ One thousandth |
| c. 1,000,000,000 | ○ One millionth  |
| d. 0.000001      | ○ Ten thousand   |
| e. 0.001         | ○ One million    |
| f. 10,000        | ○ One billion    |

2. Write each expression as a multiple of a power of 10:

- 42,300
- 2,000
- 9,200,000
- Four thousand
- 80 million
- 32 billion

3. Each statement contains a quantity. Rewrite each quantity using a power of 10.

- There are about 37 trillion cells in an average human body.
- The Milky Way contains about 300 billion stars.
- A sharp knife is 23 millionths of a meter thick at its tip.
- 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  $\pi$ . Then estimate how many cubic centimeters this is by using 3.14 to approximate  $\pi$ .

(From Unit 5, Lesson 20.)

5. Solve each of these equations. Explain or show your reasoning.

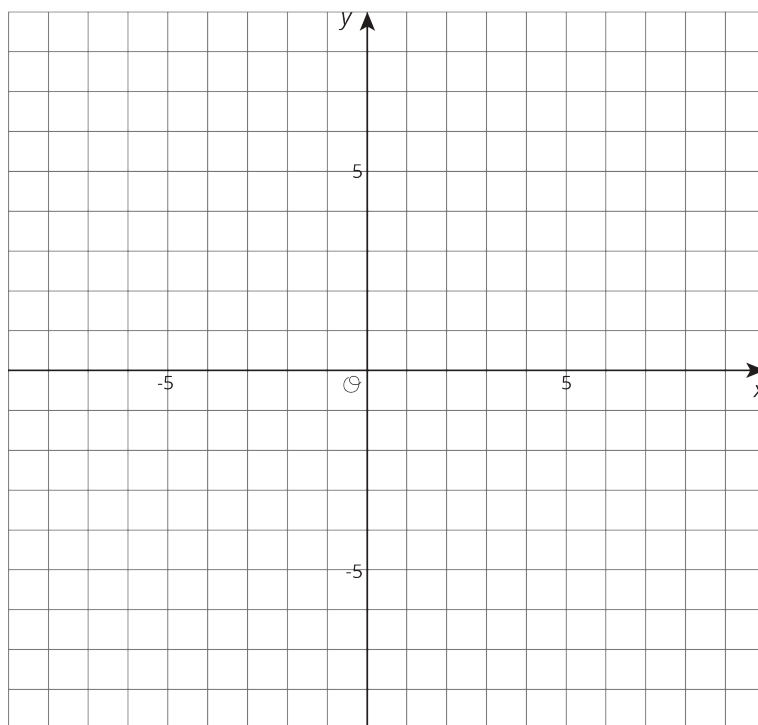
$$2(3 - 2c) = 30$$

$$3x - 2 = 7 - 6x$$

$$31 = 5(b - 2)$$

(From Unit 4, Lesson 5.)

6. Graph the line going through  $(-6, 1)$  with a slope of  $\frac{2}{3}$  and write its equation.



(From Unit 3, Lesson 10.)