

Book 3 Test Review

1. A jar of 1000 jellybeans was placed in the school's office, and a message next to it asked "How many of these jelly beans are purple?"
 Sonya counted 18 beans in one area and noted that 6 of them were purple. She counted 10 in another area, and 4 were purple. In a third area, she counted 25 jellybeans and found 10 of them to be purple. Based on Sonya's data, estimate how many purple Jelly beans are in the jar.

$$6/18 + 4/10 + 10/25 = 20/53 = ?/1000$$

377 purple jelly beans

2. While watching a hockey match Todd got very thirsty. The snack stand sold drinks in four sizes:

Sorta Swig: 20 ounces for \$0.85 4.25¢ Swig: 32 ounces for \$1.05 3.28¢
 Big Swig: 44 ounces for \$1.19 2.7¢ Super Swig: 64 ounces for \$1.45 2.27¢

- a. Which size would give Todd the most refreshment for his money? Explain how you made your decision.

The cost divided by quantities are the prices listed above for how much each ounce cost you in cents. Therefore the best deal is the Super Swig

- b. If the snack offered an 84 ounce Mega Swig, how much should Todd expect to pay? Explain your thinking.

$$\$1.45/64 \text{ oz} = ?/84 \text{ oz}$$

\$1.90 but seeing the cost of the sodas always got cheaper as they bought, an acceptable answer would be between \$1.55 and \$1.90, with the best answer being about \$1.75

State	1994 population	Land Area (Square Miles)
New York	7,169,000	47,224
New Mexico	1,654,000	64,364

3. Find the population densities of the two states.

152 people per square mile in NY
 26 people per square mile in NM

4. How many people would have to move out of New York for it to have the same population density as New Mexico?

$$5,955,457$$

$$?/47,224 = 1,654,000/64,364$$

? = 1,213,543 This represents what the population of NY would need to be to be equal to NM so when you subtract that from 7,169,000 you get 5,955,457

5. How many people would have to move from New York to New Mexico for the two states to have the same population density?

$$3,435,110$$

First you need to put both laces together to average out their density so you get a total population of 8,823,000 and a total area of 111,588. Now set that ratio equal to NY using only its area.

$$?/47,224 = 8,823,000 / 111,588$$

? = 3,733,890 This represents what the population of NY would need to be to be equal to NM so when you subtract that from 7,169,000 you get 3,435,110 people would have to more from NY to NM.

6. Adam rode his bike to the library. The 4 mile distance took him about 20 minutes. Adam wondered what his speed was for his trip. Find Adam's speed in miles per hour.

$$4/20 = ?/60$$

12 mph