

## B Quiz #33

### Lessons 129–132

1. Solve.  $5[3 + 4 \times 3 - 6] = ?$
2. The two shapes are similar. Give the length of side  $y$ .
3. Madison needs a carwash and gas for her car. She has \$40.00. A carwash costs \$10.00 and gas costs \$4.50 per gallon. Write and solve an inequality to show how many gallons of gas Madison can buy. Round your answer to the nearest tenth. Graph the solution. Explain your answer.
4. Tess earns 7.5% commission on annual sales of \$550,000. Her commission is paid in twelve monthly payments, and  $\frac{3}{5}$  of each commission check is automatically deposited into a savings account. What is the amount of each check after the savings deposit?
5. The data in the table is based on a systematic random sample. Each column shows the highest level of education attained by persons responding to a survey. The sample group represents a population of 50,000. Estimate the number of people in the population who have a master's degree or PhD.

Sample Group	High School Diploma	Associate's Degree	Bachelor's Degree	Master's Degree or PhD	Total
A	80	40	55	25	200

6. A bag of 12 marbles has 4 blues, 5 greens, and 3 reds. If at first, a blue marble is pulled out and not replaced, what is the probability that the second will also be blue?
7. Find the values of  $a$  and  $b$ .
8. Simplify the following expression.  $3b + 12 + b + 4$   
Evaluate the expression when  $b = 3$ .
9. Tenth Street Florist puts together flowers for graduation. For every 4 bouquets, there are 10 daisies and 20 roses. How many daisies would be needed for 12 bouquets? How many roses would be needed?
10. The volume of the prism is  $832 \text{ in.}^3$ . What is the measure of length  $m$ ?
11. Use long division to write the fraction  $\frac{5}{6}$  as a decimal.
12. The sample groups are representative of a population of 400,000 people. Find the mean of non-smokers. Estimate the number of non-smokers in the population.

Sample Group	Smoker	Non-Smoker	Total
A	51	149	200
B	39	161	200
C	45	155	200