1. \$

 Michelle bought three golf balls and one bottle of water before starting her game. She paid \$12.00 for them. After nine holes, she bought one additional golf ball and four additional bottles of water. For these she paid \$9.50. How much does a bottle of water cost?



2. Square ABCD has sides of length 12 units each. Points W, X, Y and Z lie on sides AB, BC, CD and DA, respectively, so that $AW = \frac{1}{2}AB$, $BX = \frac{1}{2}BC$, $CY = \frac{1}{3}CD$ and $AZ = \frac{1}{4}DA$. What is the area of quadrilateral WXYZ?

2. sq units



Copyright MATHCOUNTS, Inc. 2009. All rights reserved. 2010 Chapter Target Round

3. The distribution of the 37 test scores in a math class is given in the stem and leaf plot where 5|6 represents 56 points. What percent of the scores are at most 5 points from the value of the median? Express your answer to the nearest whole number.

Test Scores

5| 8 9 6| 0 2 2 5 5 8 8 7| 0 1 2 2 3 5 5 6 8 8| 1 3 5 5 5 6 8 8 9 9 9| 0 1 2 3 8 8 9 9

4. If a + b + c + d = 11, 2a + 3c = 19, b + 4d = 22, 4a + d = 14and 5b + 3c = 5, what is the value of *d*?

Copyright MATHCOUNTS, Inc. 2009. All rights reserved. 2010 Chapter Target Round

4.

3. ____

%

5. Sherri considers the infinite sequence consisting of all positive integers, in increasing order, that are neither multiples of five nor multiples of seven. What is the 30th term in her sequence?

6. A shopper notes that a box of brand A cornflakes costs 50% more than a box of brand B and weighs 25% more than a box of brand B. According to this information, for equal weights, the cost of brand A is what percent more than the cost of brand B?



6. _____%

5. _____

Copyright MATHCOUNTS, Inc. 2009. All rights reserved. 2010 Chapter Target Round

7. In the 4-by-4 grid of unit squares shown, two coins will be placed at random such that each coin is in a different unit square. What is the probability that the two coins will not lie in the same row or column of unit squares? Express your answer as a common fraction.

8. How many ordered pairs of positive integers satisfy the equation, $\frac{1}{x} + \frac{1}{y} = \frac{1}{6}$ with x < y?

8. <u>ordered</u> pairs

7. _____

Copyright MATHCOUNTS, Inc. 2009. All rights reserved. 2010 Chapter Target Round