**Grade 6 MCA-III – Test #8 Answers**

|  |  |  |
| --- | --- | --- |
| **1.** | **Larry’s rabbit weighs 7 pounds, 2 ounces. How many total ounces does Larry’s rabbit weigh?** | |
|  | a. | 72 ounces |
|  | b. | 107 ounces |
|  | c. | 112 ounces |
|  | d. | 114 ounces |

|  |  |
| --- | --- |
| Correct Answer: | 114 ounces |

|  |
| --- |
| **Explanation** In order to find out how many ounces are in 7 pounds, 2 ounces we need to convert the 7 pounds to ounces. Since there are 16 ounces in a pound we need to multiply 16 ounces by 7 pounds. Place one number above the other so that the ones' place digits and the tens' place digits are lined up. Draw a line under the bottom number. Multiply the ones' place digits (6 \* 7 = 42). This number is larger than 9 so place the 2 below the line in the ones' place column and place the 4 above the number in the tens' place column. Multiply the digit in the tens' place column (1) by the digit in the ones' place of the second number (7). The result is 1 \* 7 = 7. That number is added to the 4 above the tens' place column to get 11. Place the answer below the line and to the left of the 2. The final result is 112. We need to add 112 ounces to the 2 ounces left from the original weight: 112 + 2 = 114 ounces. [Adding Pounds and Ounces](http://www.321know.com/mea-add_lboz.htm) /  [Geometry & Measurement](http://www.linkstolearning.com/links/geometry.htm) |

|  |  |  |
| --- | --- | --- |
| **2.** | **Ms. Hatley is going to choose one person from each of the two lists below to represent the class in student council.  http://www.linkstolearning.com/Images/tests/Image4370.gif  Which set shows *all* the possible choices of two people?** | |
|  | a. | {(Ann, Carlos), (Ann, Lisa)} |
|  | b. | {(Ann, Dave), (Ann, Mia)} |
|  | c. | {(Ann, Dave), (Carlos, Mia), (Lisa, Dave), (Lisa, Mia)} |
|  | d. | {(Ann, Dave), (Ann, Mia), (Carlos, Dave), (Carlos, Mia), (Lisa, Dave), (Lisa, Mia)} |

|  |  |
| --- | --- |
| Correct Answer: | {(Ann, Dave), (Ann, Mia), (Carlos, Dave), (Carlos, Mia), (Lisa, Dave), (Lisa, Mia)} |

|  |
| --- |
| **Explanation** Possible outcomes of an event are the results which may occur from any event. By combining each name with a different name on the opposite list, we discover the all the possible choices of two people. Therefore, answer D is correct. [Possible Outcomes of an Event](http://www.mathleague.com/help/percent/percent.htm#possibleoutcomesofanevent) / [Data Analysis & Probability](http://www.linkstolearning.com/links/statisti.htm) |

|  |  |  |
| --- | --- | --- |
| **3.** | **Kendra put the numbered tiles in a bag.  http://www.linkstolearning.com/Images/tests/Image3667.gif  She selects one tile at random and replaces it.  If she makes 100 selections, what is a reasonable prediction of the number of tiles with a two-digit number she will select?** | |
|  | a. | 10 |
|  | b. | 20 |
|  | c. | 30 |
|  | d. | 40 |

|  |  |
| --- | --- |
| Correct Answer: | 30 |

|  |
| --- |
| **Explanation** The probability of an outcome for a particular event is a number telling us how likely a particular outcome is to occur. This number is the ratio of the number of ways the outcome may occur to the number of total possible outcomes for the event. Since there are 10 total tiles and 3 tiles with two-digit numbers, the probability of drawing a tile with a two-digit number is 3/10 or 30%. If she makes 100 selections, we can multiply the probability by 100 to find the answer: 100 x .30 = 30. [Probability of an Outcome](http://www.mathleague.com/help/percent/percent.htm#probability) / [Data Analysis & Probability](http://www.linkstolearning.com/links/statisti.htm) |

|  |  |  |
| --- | --- | --- |
| **4.** | **Edward has 65% of a garden planted with lilies. Which fraction is equivalent to 65%?** | |
|  | a. | 13   2,000 |
|  | b. | 7  20 |
|  | c. | 65  1 |
|  | d. | 13 20 |

|  |  |
| --- | --- |
| Correct Answer: | 13 20 |

|  |
| --- |
| **Explanation** If we divide the numerator by the denominator of answer D we get: 13 ÷ 20 = 0.65 = 65%. Therefore, 13/20 is equivalent to 65%. [Fractions, Decimals, and Percents](http://home.avvanta.com/~math/fr_dec_pct.html) / Number & Operation |

|  |  |  |
| --- | --- | --- |
| **5.** | **What is the greatest common divisor of 54, 36, and 24?** | |
|  | a. | 2 |
|  | b. | 3 |
|  | c. | 6 |
|  | d. | 9 |

|  |  |
| --- | --- |
| Correct Answer: | 6 |

|  |
| --- |
| **Explanation** The greatest common divisor of a set of integers is the largest integer that divides them all. The largest integer that divides 54, 36, and 24 is 6 (6 x 9 = 54, 6 x 6 = 36, and 6 x 4 = 24). [Greatest Common Divisor](http://primes.utm.edu/glossary/page.php?sort=GCD) / Number & Numeration |

|  |  |  |
| --- | --- | --- |
| **6.** | **A recipe for pancakes requires 3 eggs and makes 12 pancakes. What is the ratio of eggs to pancakes?** | |
|  | a. | 12:3 |
|  | b. | 1:4 |
|  | c. | 3:1 |
|  | d. | 1:3 |

|  |  |
| --- | --- |
| Correct Answer: | 1:4 |

|  |
| --- |
| **Explanation** A ratio is a comparison of two numbers. Since the pancakes require 3 eggs to make 12 pancakes, the ratio is 3:12, which reduces to 1:4. [Ratio](http://www.mathleague.com/help/ratio/ratio.htm#ratio) /  [Ratio & Proportion](http://www.linkstolearning.com/links/proporti.htm)  [Geometry & Measurement](http://www.linkstolearning.com/links/geometry.htm) |

|  |  |  |
| --- | --- | --- |
| **7.** | **Mr. Ramirez bought 6 tickets to the circus. He spent a total of $12.00. He used the equation below to determine the cost of each ticket, *t*.  6*t* = 12.00  How much money did Mr. Ramirez spend on each ticket?** | |
|  | a. | $72.00 |
|  | b. | $18.00 |
|  | c. | $6.00 |
|  | d. | $2.00 |

|  |  |
| --- | --- |
| Correct Answer: | $2.00 |

|  |
| --- |
| **Explanation** We need to divide both sides of the equation by 6 to get: *t* = $2.00. [Basic Equations](http://library.thinkquest.org/20991/prealg/eq.html) / [Algebra](http://www.linkstolearning.com/links/pre-alge.htm) |

|  |  |  |
| --- | --- | --- |
| **8.** | **The rectangle below is divided into two triangles by drawing a diagonal.  http://www.linkstolearning.com/Images/tests/Image10112.gif  Which statement is true about the area of the rectangle and the area of one of the triangles?** | |
|  | a. | The area of one triangle is equal to 1/4 the area of the rectangle. |
|  | b. | The area of one triangle is equal to 1/2 the area of the rectangle. |
|  | c. | The area of one triangle is equal to the area of the rectangle. |
|  | d. | The area of one triangle is twice the area of the rectangle. |

|  |  |
| --- | --- |
| Correct Answer: | The area of one triangle is equal to 1/2 the area of the rectangle. |
| **Explanation** Since the rectangle is divided exactly in half, the area of each triangle is equal to 1/2 the area of the rectangle. [Area](http://www.mathleague.com/help/geometry/area.htm) / [Geometry & Measurement](http://www.linkstolearning.com/links/geometry.htm) | | |