Problem of the Pay: 6.7.07 Week 2 Name **Extended Response Multiple Choice A** Mrs. Gilson is buying snacks for after 1. This is a number sorter. If you put the school tutoring. Juice drinks come 8 to a number 59 into the number sorter, it would box, snack cakes come 12 to a box, and land in the blue cup because 59 is a prime packs of crackers are sold in boxes of 10. QUESTION number greater than 30. If Mrs. Gilson wants to buy the same number of each of the three types of snacks, what is the least number of boxes of each she would need to buy? Show ALL work and explain WHAT you did to solve the problem and WHY you took those steps. < 30 > 30 red blue vellow green If you put the number 100 into the sorter, which cup would it land in? a red b blue c. vellow d. green SOLUTION 2. Tanner is giving away all of his pencils and pens. He has 60 pencils and 24 pens in his pencil case. What is the largest number of friends to which he can evenly give all of his pencils and pens? Hint: GCF a. 12 b. 24 c. 6 d. 3 2

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| | Short Response A | Multiple Choice B | Short Response B |
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| QUESTION | A giraffe can run at speeds of up to 32 mph. What is the prime factorization of 32, written in exponential form? | 1. What could be the area of a <i>square</i> painting if its width is a <i>prime</i> number? | While looking at the answers in the back of her math book, Mickaela finds that the prime factorization of a certain integer is: $2^3 \times 19$. Multiply out this expression to find the integer Mickaela was trying to factorize. |
| | | a. 100 inches b. 81 inches c. 144 inches d. 121 inches | |
| YOUR WORK | | 2. Malik is thinking of a square number less than 100. The sum of its digits is 13 and the product of its digits is 36. What is the number?a. 81 b. 64 c. 49 d. 36 | |
| | Show ALL work and LABEL your answer. | | Show ALL work and LABEL your answer. |
| Solution | | $\begin{array}{c} 1. \\ 2. \\ \end{array} \begin{pmatrix} A \\ B \\ C \\ D \end{pmatrix} $ | |