**Extended-Response Vacation HW**

**Demonstrate your knowledge by giving a clear, concise solution to each problem. Be sure to include all relevant drawings and justify your answers. You may show your solution in more than one way or investigate beyond the requirements of the problem.**

1. A furniture store offers a certain amount of money off of a future purchase that is proportional to the amount spent in the store. Suppose Tenecia has $2000 to spend on new furniture.

**a. Complete the table** to show how much savings on future purchases Tenecia would receive for different possible amounts spent on furniture.

|  |  |
| --- | --- |
| **Amount Spent on**  **Furniture** | **Savings on**  **Future Purchase** |
| $400 | $48 |
| $800 |  |
| $1200 |  |
| $1600 |  |
| $2000 |  |

**b.** Write the ratio of savings to amount spent as a fraction in **simplest form.**

**c.** Tenecia finds a sofa she would like to buy for $900. Tenecia thinks her savings on a future purchase will be $108. Is she correct? Explain.

**2.** The directions on a barrel of fertilizer indicate that one barrel is enough to fertilize 1.5 acres. **Explain how to find** **AND find** the number of barrels of fertilizer needed for 42 acres.

**3.** A telemarketing group sells, on average, one newspaper subscription for every 35 people they call.

1. If the group calls 700 people in one month, how many subscriptions would they expect to sell?

**b.** How many calls should the group make to reach a monthly sales goal of 300 subscriptions?

**Extended-Response Rubric** SCORE \_\_\_\_\_\_\_\_\_\_\_

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| --- | --- |
| **Score** | **Description** |
| **4** | A score of four is a response in which the student demonstrates a thorough understanding of the mathematics concepts and/or procedures embodied in the task. The student has responded correctly to the task, used mathematically sound procedures, and provided clear and complete explanations and interpretations.  The response may contain minor flaws that do not detract from the demonstration of a thorough understanding. |
| **3** | A score of three is a response in which the student demonstrates an understanding of the mathematics concepts and/or procedures embodied in the task. The student’s response to the task is essentially correct with the mathematical procedures used and the explanations and interpretations provided demonstrating an essential but less than thorough understanding.  The response may contain minor flaws that reflect inattentive execution of mathematical procedures or indications of some misunderstanding of the underlying mathematics concepts and/or procedures. |
| **2** | A score of two indicates that the student has demonstrated only a partial understanding of the mathematics concepts and/or procedures embodied in the task. Although the student may have used the correct approach to obtaining a solution or may have provided a correct solution, the student’s work lacks an essential understanding of the underlying mathematical concepts.  The response contains errors related to misunderstanding important aspects of the task, misuse of mathematical procedures, or faulty interpretations of results. |
| **1** | A score of one indicates that the student has demonstrated a very limited understanding of the mathematics concepts and/or procedures embodied in the task. The student’s response is incomplete and exhibits many flaws. Although the student’s response has addressed some of the conditions of the task, the student reached an inadequate conclusion and/or provided reasoning that was faulty or incomplete.  The response exhibits many flaws or may be incomplete. |
| **0** | A score of zero indicates that the student has provided no response at all, or a completely incorrect or uninterpretable response, or demonstrated insufficient understanding of the mathematics concepts and/or procedures embodied in the task. For example, a student may provide some work that is mathematically correct, but the work does not demonstrate even a rudimentary understanding of the primary focus of the task. |