Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_

**3.5C Solving Two-Step Equations Word Problems\_Classwork**

***Write an equation to describe the situation. Solve. Show your work.***

***Example 1:*** You order plant seeds from a catalog. Each packet costs $0.90. The shipping charge is $2.50. If you have $18.50 to spend, how many seeds packets can you order?

|  |  |
| --- | --- |
| **X****packets** | **Y****cost** |
| 15 |  |
| 16 |  |
| 17 |  |
| 18 |  |



**Check:**

* 18 packets would cost: (18)($0.90) + 2.50 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* 17 packets would cost: (17)($0.90) + 2.50 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* How many packets can you order? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Can you order part of a packet? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| 1. Mark is an aspiring music artist. He has a record contract that pays him a base rate of $200 a month and an additional $12 for each album that he sells. Last month he earned a total of $644.

Write an equation to determine the number of albums (a) Mark sold last month. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Find the number of albums Mark solid last month. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | SHOW WORK |
| 1. Roger gets $40 per day as wages and $4.50 as commission for every pair of shoes he sells in a day. His daily earnings goal is $112.

Write an equation to determine how many pairs of shoes, p, Roger must sell in a day to meet his daily earnings goal. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Find the number of pairs of shoes he must sell to meet his daily earnings goal. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | SHOW WORK |
| 1. Last month, Maggie bought a tree that grows 2.5 cm each day. It was 5 cm tall when she bought it and now it is 65 cm tall.

Write an equation to determine the number of days (d) Maggie has owned the plant. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Find the number of days Maggie has owned the plant. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | SHOW WORK |
| 1. Fabio and Carlos play on a basketball team together. In the last game, Fabio had 7 points less than 2 times as many points as Carlos. Fabio scored 31 points in the game.

Write an equation to determine the number of points (c) Carlos scored in the last game. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Find the number of points Carlos scored in the last game. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | SHOW WORK |
| 1. Carl is boarding a plane. He has 2 checked bags of equal weight and a backpack that weighs 4 kg. The total weight of Carl’s baggage is 35 kg.

Write an equation to determine the weight, w, of each Carl’s checked bags. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Find the weight of each of his checked bags. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | SHOW WORK |
| 1. Jack’s mother gave him 50 chocolates to give to his friends at his birthday party. He gave 3 chocolates to each of his friends and still had 2 chocolates left.

Write an equation to determine the number of friends (x) at Jack’s party. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Find the number of friends at Jack’s party. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | SHOW WORK |

Website to generate more practice problems: <https://www.khanacademy.org/math/algebra/one-variable-linear-equations/alg1-linear-eq-word-probs/e/linear-equation-world-problems-2>