

Solve each problem. Use  $x$  as the variable. Show the check.

**Word Problem Wednesday**

1. A repair person charges \$125 for a service call plus \$40 per hour of service. The total for one customer was \$205.

(a) What would this problem ask you to solve for?

$x$  = the number of \_\_\_\_\_

(b) Make a table of  $x$  and the cost. Start with  $x = 0$

$x$	cost
0	
1	
2	
3	

Show the row differences. Circle the row in the table with the right cost.

(c) Write an equation for the problem of the form  $y = mx + b$ , and solve it for  $x$

(d) Check the answer

(e) Spicy: How much would be the tax at 8.75% on the total charge?

2. Mubin collected 10 pounds of aluminum cans to recycle. He plans to collect an additional 2 pounds each week. His goal is to collect a total of 20 pounds of aluminum cans.

3. A boat rental service charges a \$15 deposit and \$3 per hour to rent one canoe. Arilenys has budgeted \$45 to spend on her boat trip.

4. The entrance fee at a carnival is \$12.50 and each ride costs \$1.50. Henry has \$30.

5. A target shooting video game gives you a starting score of 500 points, and you lose 50 points with each miss. Gio wants to stop when he reaches 100 points.

- There are two cell phone plans. Sprint has a start-up fee of \$35 and costs \$20 per month. The Huson-tel phone company plan costs \$15 to start, but charge \$25 per month. After how many months will they cost the same?
- Dr. Huson's philodendron plant is 5 inches tall and grows one inch per week. His Swedish ivy cutting is 2 inches tall and grows 2 inches per week. After how many weeks will they be the same size?