

# Finding outputs of a one-step function that models a real-world situation: Two variable equation: Worksheet 7.3

Name ..... Date ..... Score .....

1. A plant is 45 inches tall and it grows one inch every month. The plant's height,  $H$  (in inches), after  $n$  months is given by the following function  $H(n) = 45 + n$ . What is the plant's height after 24 months?
2. Oceania Bike Rentals charges 6 dollars an hour for renting a bike. Total amount to be paid is given by the function  $T(h) = 6h$ , where  $h$  is the number of hours. What total amount Sandy has to pay if he rented a bike for 7 hours?
3. A number is given by the function  $N(x) = x + 14$ , where  $x$  is another number. What is the number  $N$  if  $x = 23$ ?
4. The number of books Ron has is given by the function  $B(y) = y - 18$ . How many books does Ron have if  $y = 32$ ?
5. Anita tutors math. For each hour she tutors, she earns \$45. Her earnings,  $E$  (in dollars), after tutoring for  $k$  hours is given by following function  $E(k) = 45k$ . How much Anita earn if she tutors for 6 hours?
6. The amount Nancy has is given by  $A(z) = z + 27$ . If Nancy has 133 dollars what is the value of  $z$ ?
7. After eating at the restaurant, Jim, Ted, and Benny decided to divide the bill evenly. If the total bill given by the function  $A(x) = 3x$  amounted to \$123, how much each pay( $x$ )?
8. The amount it costs to buy  $n$  ink cartridges is given by  $A(n) = 18n$ . How much it would cost if 11 ink cartridges were bought?
9. Joan is baking a cake. The recipe calls for  $C(y) = y + 7$  cups of flour. How many cups does she need if  $y = 8$  cups?
10. The amount Jessica has is given by  $A(x) = x + 52$  dollars, where  $x$  is the cost of pie. What amount has Jessica if  $x = 9$ ?



## Solutions: Worksheet 7.3

1. 69 inches
2. \$42
3. 37
4. 14 books
5. \$270
6. \$160
7. \$41
8. \$198
9. 15 cups
10. \$61

