

NAME \_\_\_\_\_ DATE \_\_\_\_\_ PER. \_\_\_\_\_

***SOLVING EQUATIONS WITH VARIABLES ON BOTH SIDES – Day 1***

Solve each equation, checking your solution on your calculator.

1.  $4n + 5 = 6n + 7$

2.  $7x - 4 = 0.5x - x + 35$

3.  $71 - 5x = 9x - 13$

4.  $8y - (5y + 2) = 16$

5.  $5m - 2(m - 5) = 17$

6.  $-8(4 + 9x) = 7(-2 - 11x)$

7.  $6 = 3 + 5(y - 2)$

8.  $2(x - 3) + 5 = 3(x - 1)$

9. Rapid Rental Car Company charges a \$55 rental fee and \$0.25 per mile driven. For the same car, Capital Cars charges \$45 for rental fee and \$0.35 per mile. Write an equation and find the number of miles for which the companies' charges will be the same.

Equation: \_\_\_\_\_

10. Roger is 5 feet tall and casts a shadow 3.5 feet long. At the same time a flagpole outside his school cast a shadow 14 feet long. How tall is the flag pole?

Equation: \_\_\_\_\_

11. Mia bought a dress for the homecoming dance. The total cost of the dress was \$121.24 which included an 8.25% tax. What was the price of the dress?

Equation: \_\_\_\_\_

**Answers Bank:** 2,  $\frac{7}{3}$ , 100, 6, 2.6,  $\frac{26}{5}$ , 3.6, 112, 6, -1, 20