

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

**SOLVING MULTI-STEP EQUATIONS  
W/DISTRIBUTIVE PROPERTY & LIKE TERMS**

Solve each equation showing ALL steps. Check your solution on your calculator.

1.  $-3x - 8 + 2x = 13$

$x =$  \_\_\_\_\_

2.  $48 = \frac{1}{3}(9n - 36)$

$n =$  \_\_\_\_\_

3.  $5(1 - 2b) + 8b = 15$

$b =$  \_\_\_\_\_

4.  $3(z - 5) + 8 = 1.7$

$z =$  \_\_\_\_\_

5.  $2(x + 4) - 4(x - 1) = 30$

$x =$  \_\_\_\_\_

6.  $(2h + 7) - (h + 6) + 3h = 9$

$h =$  \_\_\_\_\_

**Write an equation for each situation and solve.**

7. The length of a rectangle is triple the width. If the perimeter is 104 cm, find the length of the rectangle.

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



8. The sum of three consecutive integers is 30. Find the value of the three integers.

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

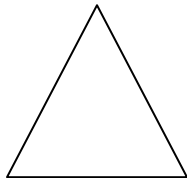
9. The perimeter of a rectangle is 68 km. If the length is 2 km less than three times the width,  $w$ , what is the length of the rectangle?

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



10. The perimeter of a triangle is 47cm. If the longest side of the triangle is 4cm less than three times the shortest side and the third side is 6 cm more than the shortest side how long is the third side of the triangle?

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



11. You have \$83 in your bank account. Each week you plan to deposit \$8 from your allowance and \$15 from your paycheck. The equation  $b = 83 + (15 + 8)w$  gives the amount  $b$  in your bank after  $w$  weeks. How many weeks from now will you have \$175 in your bank account?

**Answers in random order:** 9, -21, 25, 20, 10, -5, 15,  $\frac{29}{10}$  or 2.9, -9, 11, 2, 4, 39