NAME: _____ FORM: _____

Algebra

Solving for an Unknown Variable

INSTRUCTIONS: Solve the following equations to find the value of the unknown variable.

1) $\frac{-w}{3} - 1 = 5$ $w =$ _____

2) $\frac{-2}{7r} = 42$ $r =$ _____

3) $-9(y - 5) = 72$ $y =$ _____

4) $\frac{1}{3}x - 2 = -6$ $x =$ _____

5) $\frac{10k+20}{15} = 6$ $k =$ _____

6) $\frac{16}{y^2} = 5$ $y =$ _____

7) $\frac{-k}{-5} - 26 = 19$ $k =$ _____

LIVEWORKSHEETS

8) Ronald is x years old.

His friend Colin is 3 years older than Ronald.

Colin is 19 years old.

(a) Write down an equation for this information.

_____

(b) Solve your equation to find how old Ronald is.

_____

9) Find the values of *x* and *y* in the following simultaneous equation:

$$-3x + 4y = 6$$

$$-2x - 3y = -13$$

WORKING:

x =

y =

LIVEWORKSHEETS

10) Linda was selling tickets for the school play. She sold 10 more adult tickets than children tickets and she sold twice as many senior tickets as children tickets. The total number of tickets sold was 502.

Let x represent the number of children's tickets sold.

a) Write an equation to represent the total ticket sales. (Simplest terms)

_____

b) How many senior tickets were sold for the play?

_____

LIVEWORKSHEETS