

**Math Plus Unit 1 Test Review**

Name: \_\_\_\_\_

Simplify each expression		
1. $3x + 4 - 2x + 7$ $x + 11$	2. $-(2x + 9) - 2$ $-2x - 11$	3. $4 + 2x - 2(x - 1)$ $6$
4. $4(x - 4) + 2(2x + 9) + 1$ $8x + 3$	5. $4x(2x - 3) - 7x^2 - 6x + 1$ $8x^2 - 12x - 7x^2 - 6x + 1$ $x^2 - 18x + 1$	6. $2x^2 - 5x - 9x^2 - 4(x - 2)$ $-7x^2 - 9x + 8$

Solve		
1. $-4x - 2 = -14$ $-4x = -12$ $x = 3$	2. $-3(p - 2) = -3p + 2$ $-3p + 6 = -3p + 2$ <i>NDSAP</i>	3. $r = 3(r - 2) + 7$ $r = 3r - 6 + 7$ $-2r = 1$ $r = -\frac{1}{2}$
4. $13n - 6 = 7n + 3(2n - 2)$ <i>IR</i>	5. $\frac{3}{2x-4} = \frac{7}{3x+1}$ $x = \frac{31}{5}$	6. $\frac{m}{5} - 4 = -7$ $\frac{m}{5} = -3$ $m = -15$

Solve each literal equation for the variable that is indicated.			
1. $m = \frac{1}{3}rph$ ; p $3m = rph$ $\frac{3m}{rn} = p$	2. $n - 3p = 9$ ; p $-3p = 9 - n$ $p = \frac{9-n}{-3}$ $p = -3 + \frac{n}{3}$	3. $\frac{a+b}{2} = y$ ; b $a+b = 2y$ $b = 2y - a$	4. $\frac{x+y}{2} - 3 = 6$ ; y $\frac{x+y}{2} = 9$ $x+y = 18$ $y = 18 - x$

Three less than one fifth of a number is 2. Find the number. Equation:  
 $\frac{1}{5}x - 3 = 2$        $\frac{1}{5}x = 5$       Answer:  
 $x = 25$

Look over other application problems as well!!