



## Radical Match

Name \_\_\_\_\_

MATCH each radical equation with its correct solution. Be sure to check for extraneous roots. When finished, fill in the missing letters to decode the hidden message.

\_\_\_\_\_ 1.  $\sqrt{x} + 3 = 7$

\_\_\_\_\_ 2.  $\sqrt{x+10} = 2$

\_\_\_\_\_ 3.  $9 = \sqrt{x} + 7$

\_\_\_\_\_ 4.  $3\sqrt{x} + x^2 = 15 + x^2$

\_\_\_\_\_ 5.  $\sqrt{x+5} + 1 = 3$

\_\_\_\_\_ 6.  $2\sqrt{x} + 7 = 5$

\_\_\_\_\_ 7.  $\sqrt{5x-2} = \sqrt{x+6}$

\_\_\_\_\_ 8.  $\sqrt{x} = \sqrt{6x-15}$

\_\_\_\_\_ 9.  $\sqrt{5x-9} - x = -1$

\_\_\_\_\_ 10.  $x - 3 = \sqrt{30 - 2x}$

\_\_\_\_\_ 11.  $\sqrt{x^2 - x - 2} = 2$

\_\_\_\_\_ 12.  $\sqrt{x+5} = \sqrt{x^2+5}$

\_\_\_\_\_ 13.  $\sqrt{9x^2 + 4x - 4} = 3x$

<b>Answers:</b>	I. $x = -2, 3$
A. $x = 0, 1$	L. $x = -1$
B. $x = 16$	R. $x = -6$
C. $x = 2$	S. $x = 4$
D. $x = 3$	T. $x = 25$
E. $x = 2, 5$	V. $x = 1$
G. $x = 7$	Y. no solution

### Decode the message:

12	5	10	9	1	2	12		
		11	3		12			
2	12	8	11	7	12	5		
12	7	4	11	13	11	4	6	!