



Radical Match

Name ANSWERS

Directions: 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.

- B 1. $\sqrt{x} + 3 = 7$ $x = 16$
- R 2. $\sqrt{x+10} = 2$ $x = -6$
- S 3. $9 = \sqrt{x} + 7$ $x = 4$
- T 4. $3\sqrt{x} + x^2 = 15 + x^2$ $x = 25$
- L 5. $\sqrt{x+5} + 1 = 3$ $x = -1$
- Y 6. $2\sqrt{x} + 7 = 5$ **no real solution**
- C 7. $\sqrt{5x-2} = \sqrt{x+6}$ $x = 2$
- D 8. $\sqrt{x} = \sqrt{6x-15}$ $x = 3$
- E 9. $\sqrt{5x-9} - x = -1$ $x = 2, 5$
- G 10. $x - 3 = \sqrt{30 - 2x}$ $x = 7$
- I 11. $\sqrt{x^2 - x - 2} = 2$ $x = -2, 3$
- A 12. $\sqrt{x+5} = \sqrt{x^2+5}$ $x = 0, 1$
- V 13. $\sqrt{9x^2 + 4x - 4} = 3x$ $x = 1$

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

Decode the message:

A	L	G	E	B	R	A	
12	5	10	9	1	2	12	
	I	S		A			
	11	3		12			
R	A	D	I	C	A	L	
2	12	8	11	7	12	5	
A	C	T	I	V	I	T	Y!
12	7	4	11	13	11	4	6