

**SAMPLE SECTION: I [GOAL: 8-12 Min., All Correct] Score: \_\_\_\_\_/16****Linear Equations:**

1.  $-4x + 2 + 8x = 22$

2.  $14x + 7 - 5x = 34$

3.  $7x + 7 - x = 49$

4.  $14x + 9 - 7x = 58$

5.  $-x + 9 + 3x = 25$

6.  $4x - 8 - x = 13$

7.  $2x + 8 + x = 29$

8.  $12x + 6 - 8x = 22$

9.  $3x + 6 + 7x = 76$

10.  $7x + 4 - 10x = -2$

11.  $-2x + 5 - 2x = -35$

12.  $4x + 6 - x = 36$

13.  $18x - 8 - 9x = 82$

14.  $13x + 5 - 8x = 25$

15.  $12x + 3 - 6x = 21$

16.  $-x + 4 + 6x = 34$

SAMPLE

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Pythagorean Theorem Problems - Complete the table for the formula:  $a^2 + b^2 = c^2$ . Round answers to the nearest hundredth, if necessary.

	a	b	c
1.	6 cm	8 cm	
2.	5 feet		13 feet
3.	10 inches	24 inches	
4.	21 m		35 m
5.	9 yards	12 yards	
6.	7 cm		20 cm
7.	14 feet	18 feet	
8.	20 inches		33 inches
9.	17 m	18 m	
10.	19 yards		62 yards

Other Problems:

11-12. A triangle has angles with measures of  $50^\circ$  and  $80^\circ$ .

11. What is the measure of the third angle? \_\_\_\_\_

12. What type of triangle is this? \_\_\_\_\_

13-14. A triangle has angles with measures of  $36^\circ$  and  $27^\circ$ .

13. What is the measure of the third angle? \_\_\_\_\_

14. Is this triangle acute, obtuse, or equilateral? \_\_\_\_\_

15-16. A triangle has angles with measures of  $45^\circ$  and  $90^\circ$ .

15. What is the measure of the third angle? \_\_\_\_\_

16. Is this triangle acute, obtuse, or right? \_\_\_\_\_