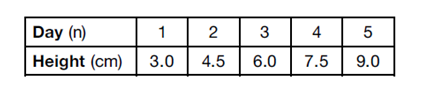
**Name: Period: Job 38: Solving Linear – Quad Systems**

**Part 1: Lesson 9-7 Textbook**

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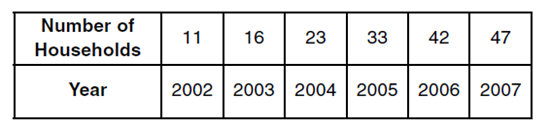
**Part 2: Algebra Regents Questions –**

1. The zeros of the function are
2. and (3) and
3. and (4) and
4. Each day Toni records the height of a plant for her science lab. Her data are shown in the table below.



The plant continues to grow at a constant daily rate. Write an equation to represent , the height of the plant on the th day.

1. The table below shows the year and the number of households in a building that had high-speed broadband internet access.



For which interval of time was the average rate of change the *smallest*?

1. (3)
2. (4)

1. Which polynomial function has zeros at and ?
2. (3)
3. (4)
4. The number of carbon atoms in a fossil is given by the function , where represents the number of years since being discovered.

What is the percent of change each year? Explain how you arrived at your answer.

1. Which trinomial is equivalent to ?
2. (3)
3. (4)
4. Jackson is starting an exercise program. The first day he will spend 30 minutes on a treadmill. He will increase his time on the treadmill by 2 minutes each day. Write an equation for , the time, in minutes, on the treadmill on day .
5. If Lylah completes the square for in order to find the minimum, she must write in the general form . What is the value of for ?
6. (3)
7. (4)

8. Subtract from . Express the result as a trinomial.