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| Lesson 1.7 | Homework |

**Describe the number and type of roots using the Discriminant.**

1.  2.  3. 

4.  5.  6. 

**Solve the following using the Quadratic Formula. Write answers in set notation.**

7.  8.  9. 

10.  11.  12. 

13. Highway safety engineers can use the formula:  to estimate the minimum stopping distance ***d*** in feet in feet for vehicle traveling ***s*** miles per hour. If a car able to stop after 125 feet, what is the fastest it could have been traveling when the drive first applied the brakes?

14. The NFL salary A(t), in thousands, from 1975 to 2000 can be estimated by the function

 where ***t*** is the number of years since 1975.

1. Determine a domain (time) and range (salary) that make sense for this function
2. According to this model, in what year did the average salary exceed $1 million?