## TRS 92: Writing Equations II

1. The Census Bureau found that in 2000, the population of Spring was 13,350 . In 2010, the population had grown to 28,447 .
a. Define the independent and dependent variables.
b. Write the linear equation that represents this situation. Show all work.
2. In anticipation of a summer of fishing John and Gordy watch the water flow of the upper Animas River at the gauging station in Howardsville. At the beginning of the season, the river was running 925 CFS. 44 days later, the river was running at 650 CFS.
a. Define the independent and dependent variables.
b. Write the linear equation, using function notation, which will model the situation. Show all work.
3. An online bookstore charges a flat rate plus a per book charge. The data below gives some information about their costs.

| \# of books | 10 | 16 | 21 | 28 | 38 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Cost, in $\$$ | 20 | 27.5 | 33.75 | 42.5 | 55 |

a. Define the independent and dependent variables.
b. Write the linear equation that represents this situation. Show your work.
c. From part b, identify and interpret the slope of the equation.
d. From part b, identify and interpret the vertical intercept of the equation.

