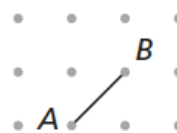


1. Your parents give you \$1000 and you decide to invest it in an account earning 7% interest per year.
  - a. What is the growth factor of your investment?
  - b. Write an equation that models the value of your investment over time.
  - c. How much is your investment worth in 5 years? Justify your answer.
  - d. When will your investment be worth at least \$3000? Justify your answer.
  
2. Your parents buy you a car! You are going to sell your car to your sister. Cars depreciate, or go down, in value from year to year. You bought your car in 2010 for \$25,000 and it has depreciated by 20% each year. In other words, the value of the car goes down by 20% each year.
  - a. What is the decay factor of your car?
  - b. Write an equation that models the value of your car over time.
  - c. How much is your car worth when you sell it to your sister?
  - d. How much are you going to sell your car for?

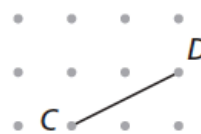
3. Consider segment  $AB$  at right.

- a. On dot paper, draw a square with side  $AB$ .  
What is the area of the square?
- b. Use a calculator to estimate the length of segment  $AB$ .



4. Consider segment  $CD$  at right.

- a. On dot paper, draw a square with side  $CD$ .  
What is the area of the square?
- b. Use a calculator to estimate the length of segment  $CD$ .



Dot Paper for Number 4

