Algebra 1 - Function Word Problems

- 1. Johnny gets paid \$25.00 to baby-sit plus \$5.00 for every room he cleans in the house, r. His total payment is represented by the equation: P = 20 + 5r
 - a. Write the equation in function notation
 - b. Find P(4)
 - c. What is the meaning of P(4) in the context of the problem?
 - d. If Johnny earns a total of \$45.00, how many rooms did he clean?

2. You have \$250 in savings at the start of the month. Your job pays a total of \$30 for each day that you work. The bank does not pay interest.
a. Write an equation representing how much money is in your account for any number of days worked

b. What is a reasonable domain for this function?

c. How much money will you have if you work 20 days of the month?

3. The length of a rectangle is 16 in more than its width. If the perimeter of the rectangle is 5 ft:

a. Write an equation to model the situation
ь. Find the dimensions of the rectangle
c. Find the area of the rectangle
4. The Uber service charges \$2.50 for a ride, plus \$0.75 per mile after the ride has exceeded 10 miles.
a. Write an equation to model the situation

b. If you have \$11.20 to spend on the ride, how many miles can you travel without exceeding your budget?
5. You have \$550 from your job and earn \$25 each week from your job. Your sister has \$500 and earns \$30 each week from her job.
a. Write an equation representing the situation
ь. After how many weeks will you both have the same amount of money?
c. How much money will this be?