

Word Problems: No calculator Substitution HW

Name \_\_\_\_\_

1. Taxi town charges \$5 plus \$2 per mile to ride. Cab City charges \$10 plus \$1 per mile for a ride. How many miles would have the same cost at each company?
2. John is seven years younger than his sister Ann. The sum of their ages is 45. Find John's age.
3. The perimeter of a rectangle is 68 cm. The length is four more than the width. Find the dimensions of the rectangle.
4. Sydney walks a rectangular path around her house for exercise. If the length is 2 less than the width and Sydney covers a distance of 116 feet, find the width.
5. Kayleigh and Allison race. Kayleigh runs 5 miles per hour. Allison runs 3 miles per hour but has a 1 mile head start. Using the formulas below where  $h$  is hours and  $d$  is distance, how long does it take before they meet each other in the race?

**Kayleigh**             $d = 5h$

**Allison**             $d = 3h + 1$