Systems of Linear Equations Word Problems Worksheet

1. A man is 3 times older than his son now. He will be twice older than his son in 8 years. How old are each now?

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2. The sum of the digits of a certain two-digit number is 7. Reversing the digits increases the number by 9. What is the number?

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3. Eleven times one number is 9 more than 8 times another number. The first number minus 4 is half the second number. Find the two numbers.

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4. Two bicycle riders start from the same point and ride in opposite directions. One rider is moving twice as fast as the other. In 3 hours, they are 72 miles apart. Find the speed of each rider.

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5. There are 200 people attending a marriage ceremony. There are 10 less men than there are women. Create a system of linear equations to determine the number of men and women and solve.

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Answers

1. A man is 3 times older than his son now. He will be twice older than his son in 8 years. How old are each now?

Boy = 8 years
Man = 24 years

2. The sum of the digits of a certain two-digit number is 7. Reversing the digits increases the number by 9. What is the number?

34

3. Eleven times one number is 9 more than 8 times another number. The first number minus 4 is half the second number. Find the two numbers.

11, 14

4. Two bicycle riders start from the same point and ride in opposite directions. One rider is moving twice as fast as the other. In 3 hours, they are 72 miles apart. Find the speed of each rider.

8 miles/hour
16 miles/hour

5. There are 200 people attending a marriage ceremony. There are 10 less men than there are women. Create a system of linear equations to determine the number of men and women and solve.

Number of men = 95
Number of women = 105