Name _____

Linear Equation Word Problems

1. Emma drives her car to work every day, a total of 50 miles round trip. She notices her fuel efficiency drops by 0.2 miles per gallon for every additional pound of cargo she carries. If her car's fuel tank holds 15 gallons and she carries 200 pounds of cargo, how many gallons of fuel will she need for a week's commute?

2. Oliver is mixing two solutions. Solution A is 40% saline, and solution B is 25% saline. He wants to create 200 milliliters of a mixture that is 30% saline. How much of each solution should he mix?

3. Mia has a phone plan that charges a base rate of $20 per month and an additional $0.05 per minute for calls. Last month, her phone bill was $35. How many minutes did she spend on calls?

4. In a laboratory, the temperature is inversely proportional to the pressure. When the temperature is 80°F, the pressure is 50 psi. If the temperature drops to 70°F, what will be the pressure?

5. Ethan is saving for a holiday trip. He plans to save $500 each month for the next year, starting from January. If he also has $200 saved already, how much money will he have saved by December?

6. A factory produces 100 units of a product in 8 hours. Due to a new efficiency program, they increase their production rate by 10 units per hour. How long will it take to produce 500 units?

7. Lily has a rectangular garden with a length 5 meters longer than its width. If the perimeter of the garden is 70 meters, what are its dimensions?

8. A train travels from Town A to Town B at an average speed of 60 km/h. On its return journey, due to increased passenger demand, it travels at an average speed of 75 km/h. If the total travel time for the round trip is 8 hours, what is the distance between the two towns?

9. Sarah invests some money in two investment accounts. One account earns 5% annual interest, and the other earns 8% annual interest. If she earned a total of $340 in interest after one year and invested $4000 more in the 8% account than the 5% account, how much did she invest in each account?

10. A blueprint of a house is drawn to a scale of 1 inch to 5 feet. If the actual length of the living room in the house is 25 feet, how long is it on the blueprint?