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Systems of Equations Word Problems - Practice Worksheet

Name: _____ Date: _____

Instructions: Read each word problem carefully. Define your two variables, write a system of two equations, then solve using substitution or elimination. Show all steps.

1. Two numbers add up to 20. One number is 4 more than the other. Find both numbers.

2. A pen costs $2 more than a pencil. Together they cost $6. Find the cost of each.

3. A farmer has chickens and cows. He counts 20 heads and 56 legs. How many chickens and how many cows are there?

4. Two friends run toward each other from 18 miles apart. One runs at 4 mph and the other at 5 mph. How long until they meet?

5. A movie theater charges $9 for adults and $5 for children. A group of 8 people paid $56 total. How many adults and how many children were in the group?

6. The sum of two numbers is 31. Their difference is 7. Find both numbers.

7. A store sells small boxes for $3 and large boxes for $7. A customer buys 10 boxes and pays $50. How many of each size did they buy?

8. One number is three times another. Their sum is 48. Find both numbers.

9. Two cars leave the same point in opposite directions. Car A travels at 55 mph and Car B at 65 mph. After how many hours are they 240 miles apart?

10. A mixture of 40 liters is made from two solutions. Solution A is 20% acid and Solution B is 50% acid. The mixture is 32% acid. How many liters of each solution are used?

Answer Key

1. x = 12, y = 8
2. Pen = $4, Pencil = $2
3. Chickens = 12, Cows = 8
4. 2 hours
5. Adults = 3, Children = 5
6. x = 19, y = 12
7. Small = 5, Large = 5

8. x = 36, y = 12
9. 2 hours
10. Solution A = 24 liters, Solution B = 16 liters