**6.5 Applications of Linear systems**

For each question, define your variables, set up a system and solve. Write your answer as a complete sentence.

1. **Four oranges and five apples cost $2.00. Three oranges and four apples cost $1.56. Find the cost of an**

 **Orange and the cost of an Apple.**

 Labels **( WHAT ARE WE LOOKING FOR?)**  Variables? Write 2 Equations:

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. **Acme rents an SUV at a daily rate of $21.95 plus 23¢ per mile. Speedo Rentzit rents the same SUV for $24.95**

 **plus 19¢ per mile. For what number of miles is the cost the same?**

 Labels **( WHAT ARE WE LOOKING FOR?)**  Variables? Write 2 Equations:

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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3. **Sergio has 150 coins, all nickels and dimes. He has 12 more dimes than nickels. How many dimes and how**

 **many nickels does he have?**

 Labels **( WHAT ARE WE LOOKING FOR?)**  Variables? Write 2 Equations:

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. **One taco and one milks cost $2.25. Two tacos and three milks cost $5.25. How much does one taco cost and how much does one milk?**

 Labels **( WHAT ARE WE LOOKING FOR?)**  Variables? Write 2 Equations:

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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5. **One a fishing trip Keema caught 24 fish. Some were rockfish which weighed an average of 2.5 pounds and some were bluefish averaging 8 pounds each. The total weight of the fish was 137 pounds. How many of each kind of fish did she catch?**

 Labels **( WHAT ARE WE LOOKING FOR?)**  Variables? Write 2 Equations:

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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7. **During a publicity campaign, a cycle shop gave away 5000 miniature cycles and bumper stickers. The cycles**

 **cost 21 cents each and the stickers cost 14 cents each. The cycle shop spent $826 on the gifts. How many of**

 **each gift did they buy?**

 Labels **( WHAT ARE WE LOOKING FOR?)**  Variables? Write 2 Equations:

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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9. **Denny has some nickels and some dimes. The value of the coins is $1.65. There are 12 more nickels than dimes.**

 **How many of each coin does he have?**

 Labels **( WHAT ARE WE LOOKING FOR?)**  Variables? Write 2 Equations:

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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10. **There were 166 paid admissions to a game. The price was $2.00 for adults and $0.75 for children. The amount taken in was $293.25. How many adults and children attended the game?**

 Labels **( WHAT ARE WE LOOKING FOR?)**  Variables? Write 2 Equations:

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