

Systems of Equations Word Problems



Solve each word problem.

- 1) The difference of two numbers is **5**. Their sum is **17**. What is the bigger number?
- 2) Emma and Sepehr are selling Chocolate Chip cookies and Oreo cookies Emma sold **5** boxes of Chocolate Chip cookies and **5** boxes of Oreo cookies for a total of **\$45**. Sepehr sold **4** boxes of Chocolate Chip cookies and **2** boxes of Oreo cookies for a total of **\$28**. Find the cost of one box of Chocolate Chip cookies.
- 3) A farmhouse shelters **10** animals, some are pigs, and some are ducks. Altogether there are **32** legs. How many pigs are there?
- 4) A class of **90** students went on a field trip. They took **8** vehicles, some cars and some buses. If each car holds **5** students and each bus hold **15** students, how many buses did they take?
- 5) Jay has **9** nickels and dimes totaling **\$0.65**. How many nickels does he have?
- 6) The equations of two lines are $6x + 3y = 33$ and $y = \frac{32 - 5x}{4}$. What is the value of x in the solution for this system of equations?
- 7) Tickets to a movie cost **\$5** for adults and **\$4** for students. A group of friends purchased **10** tickets for **\$45**. How many adults ticket did they buy?
- 8) The equations of two lines are $7x + 3y = 51$ and $y = \frac{36 - 4x}{4}$. What is the value of x in the solution for this system of equations?
- 9) A theater is selling tickets for a performance. Mr. Smith purchased **5** senior tickets and **7** child tickets for **\$58** for his friends and family. Mr. Jackson purchased **7** senior tickets and **6** child tickets for **\$66**. What is the price of a senior ticket?
- 10) A farmhouse shelters **11** animals, some are pigs, and some are ducks. Altogether there are **34** legs. How many pigs are there?

Answers of Systems of Equations Word Problems



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- 1) The difference of two numbers is **5**. Their sum is **17**. What is the bigger number? **11**
- 2) Emma and Sepehr are selling Chocolate Chip cookies and Oreo cookies Emma sold **5** boxes of Chocolate Chip cookies and **5** boxes of Oreo cookies for a total of **\$45**. Sepehr sold **4** boxes of Chocolate Chip cookies and **2** boxes of Oreo cookies for a total of **\$28**. Find the cost of one box of Chocolate Chip cookies. **5**
- 3) A farmhouse shelters **10** animals, some are pigs, and some are ducks. Altogether there are **32** legs. How many pigs are there? **6 pigs**.
- 4) A class of **90** students went on a field trip. They took **8** vehicles, some cars and some buses. If each car holds **5** students and each bus hold **15** students, how many buses did they take? **5 buses**.
- 5) Jay has **9** nickels and dimes totaling **\$0.65**. How many nickels does he have? **5**
- 6) The equations of two lines are $6x + 3y = 33$ and $y = \frac{32 - 5x}{4}$. What is the value of x in the solution for this system of equations? **4**
- 7) Tickets to a movie cost **\$5** for adults and **\$4** for students. A group of friends purchased **10** tickets for **\$45**. How many adults ticket did they buy? **5 tickets**.
- 8) The equations of two lines are $7x + 3y = 51$ and $y = \frac{36 - 4x}{4}$. What is the value of x in the solution for this system of equations? **6**
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