

Systems of linear equations word problems

- 1) A hotel has 178 rooms. Some are single rooms and some are double rooms. The singles cost \$43 per night and the doubles cost \$64 per night. All the hotel rooms are occupied. If the sales for this night are \$9271 then how many rooms of each kind does the hotel have?

- 2) You and a friend go to a mexican restaurant for lunch. You order two fajitas and five puffy tacos and your bill totals \$28.85. Your friend's bill is \$35.15 for five fajitas and four puffy tacos. How much do fajitas cost? How much do puffy tacos cost?

- 3) The sum of Simon's age and Jessica's age is 56. Four years ago, Simon was three times as old as Jessica. How old is each one now?

- 4) Sean counts 49 heads and 140 legs among the chickens and dogs on his farm. How many dogs and how many chickens does he have?

- 5) A dealer has cars and motorcycles. He only sees 110 wheels and 30 vehicles. How many are cars and how many are motorcycles?

- 6) Find the value of two numbers if their sum is 171 and their difference is 33.

- 7) Sophia spent \$329 on scarves and jeans. Scarves cost \$15 and jeans cost \$32. If she bought a total of 14 items then how many of each kind did she buy?

- 8) A basketball team scored a total of 101 points. The team made a total of 46 two–point and three–point baskets. How many two–point shots did the team make? How many three–point shots did the team make?

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Answers:

- 1) 101 single rooms and 77 double rooms.
- 2) Fajitas are \$3.55 each. Puffy tacos are \$4.35 each.
- 3) Simon is 40 years old and Jessica is 16 years old.
- 4) 21 dogs, 28 chickens.
- 5) 25 cars, 5 motorcycles.
- 6) 69 and 102
- 7) 7 scarves and 7 jeans
- 8) 37 two-point baskets and 9 three-point baskets.