

Systems of Equations Word Problems

- 1) Amy and Stefan are selling pies for a school fundraiser. Customers can buy apple pies and blackberry pies. Amy sold 6 apple pies and 14 blackberry pies for a total of \$370. Stefan sold 10 apple pies and 13 blackberry pies for a total of \$410. Find the cost each of one apple pie and one blackberry pie.

- 2) Daniel and Sarawong each improved their yards by planting rose bushes and ivy. They bought their supplies from the same store. Daniel spent \$68 on 3 rose bushes and 8 pots of ivy. Sarawong spent \$84 on 7 rose bushes and 8 pots of ivy. Find the cost of one rose bush and the cost of one pot of ivy.

- 3) Molly and Shanice are selling cheesecakes for a school fundraiser. Customers can buy pecan cheesecakes and strawberry cheesecakes. Molly sold 7 pecan cheesecakes and 12 strawberry cheesecakes for a total of \$224. Shanice sold 8 pecan cheesecakes and 14 strawberry cheesecakes for a total of \$260. Find the cost each of one pecan cheesecake and one strawberry cheesecake.

- 4) The school that Maria goes to is selling tickets to a choral performance. On the first day of ticket sales the school sold 7 senior citizen tickets and 14 child tickets for a total of \$196. The school took in \$175 on the second day by selling 11 senior citizen tickets and 3 child tickets. What is the price each of one senior citizen ticket and one child ticket?

- 5) Sarawong and Ryan each improved their yards by planting daylilies and ivy. They bought their supplies from the same store. Sarawong spent \$136 on 13 daylilies and 7 pots of ivy. Ryan spent \$96 on 3 daylilies and 7 pots of ivy. Find the cost of one daylily and the cost of one pot of ivy.

- 6) A plane traveled 2016 miles to Austin and back. The trip there was with the wind. It took 14 hours. The trip back was into the wind. The trip back took 21 hours. Find the speed of the plane in still air and the speed of the wind.
- 7) Julia and Pranav are selling cookie dough for a school fundraiser. Customers can buy packages of chocolate chip cookie dough and packages of double chocolate cookie dough. Julia sold 2 packages of chocolate chip cookie dough and 14 packages of double chocolate cookie dough for a total of \$236. Pranav sold 13 packages of chocolate chip cookie dough and 13 packages of double chocolate cookie dough for a total of \$364. Find the cost each of one package of chocolate chip cookie dough and one package of double chocolate cookie dough.
- 8) A boat traveled 63 miles downstream and back. The trip downstream took 3 hours. The trip back took 21 hours. What is the speed of the boat in still water? What is the speed of the current?
- 9) The local amusement park is a popular field trip destination. This year the senior class at High School A and the senior class at High School B both planned trips there. The senior class at High School A rented and filled 10 vans and 11 buses with 722 students. High School B rented and filled 10 vans and 14 buses with 878 students. Each van and each bus carried the same number of students. Find the number of students in each van and in each bus.
- 10) A boat traveled 216 miles downstream and back. The trip downstream took 6 hours. The trip back took 9 hours. What is the speed of the boat in still water? What is the speed of the current?

- 11) A boat traveled 63 miles downstream and back. The trip downstream took 3 hours. The trip back took 9 hours. What is the speed of the boat in still water? What is the speed of the current?
- 12) The school that Maria goes to is selling tickets to the annual talent show. On the first day of ticket sales the school sold 10 senior citizen tickets and 13 child tickets for a total of \$185. The school took in \$65 on the second day by selling 5 senior citizen tickets and 1 child ticket. What is the price each of one senior citizen ticket and one child ticket?
- 13) The school that Willie goes to is selling tickets to a choral performance. On the first day of ticket sales the school sold 12 adult tickets and 5 student tickets for a total of \$138. The school took in \$120 on the second day by selling 6 adult tickets and 11 student tickets. What is the price each of one adult ticket and one student ticket?
- 14) Yellowstone National Park is a popular field trip destination. This year the senior class at High School A and the senior class at High School B both planned trips there. The senior class at High School A rented and filled 14 vans and 10 buses with 536 students. High School B rented and filled 7 vans and 11 buses with 472 students. Each van and each bus carried the same number of students. How many students can a van carry? How many students can a bus carry?
- 15) A boat traveled 294 miles downstream and back. The trip downstream took 14 hours. The trip back took 294 hours. What is the speed of the boat in still water? What is the speed of the current?

- 16) Kayla and Scott each improved their yards by planting hostas and ivy. They bought their supplies from the same store. Kayla spent \$149 on 12 hostas and 13 pots of ivy. Scott spent \$128 on 14 hostas and 6 pots of ivy. Find the cost of one hosta and the cost of one pot of ivy.
- 17) A boat traveled 238 miles downstream and back. The trip downstream took 14 hours. The trip back took 34 hours. Find the speed of the boat in still water and the speed of the current.
- 18) The school that Lisa goes to is selling tickets to a choral performance. On the first day of ticket sales the school sold 13 senior citizen tickets and 10 child tickets for a total of \$175. The school took in \$170 on the second day by selling 12 senior citizen tickets and 10 child tickets. What is the price each of one senior citizen ticket and one child ticket?
- 19) A plane traveled 1188 miles to Singapore and back. The trip there was with the wind. It took 11 hours. The trip back was into the wind. The trip back took 18 hours. What is the speed of the plane in still air? What is the speed of the wind?
- 20) A plane traveled 1040 miles to Houston and back. The trip there was with the wind. It took 13 hours. The trip back was into the wind. The trip back took 20 hours. What is the speed of the plane in still air? What is the speed of the wind?

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- 1) Amy and Stefan are selling pies for a school fundraiser. Customers can buy apple pies and blackberry pies. Amy sold 6 apple pies and 14 blackberry pies for a total of \$370. Stefan sold 10 apple pies and 13 blackberry pies for a total of \$410. Find the cost each of one apple pie and one blackberry pie.

apple pie: \$15, blackberry pie: \$20

- 2) Daniel and Sarawong each improved their yards by planting rose bushes and ivy. They bought their supplies from the same store. Daniel spent \$68 on 3 rose bushes and 8 pots of ivy. Sarawong spent \$84 on 7 rose bushes and 8 pots of ivy. Find the cost of one rose bush and the cost of one pot of ivy.

rose bush: \$4, pot of ivy: \$7

- 3) Molly and Shanice are selling cheesecakes for a school fundraiser. Customers can buy pecan cheesecakes and strawberry cheesecakes. Molly sold 7 pecan cheesecakes and 12 strawberry cheesecakes for a total of \$224. Shanice sold 8 pecan cheesecakes and 14 strawberry cheesecakes for a total of \$260. Find the cost each of one pecan cheesecake and one strawberry cheesecake.

pecan cheesecake: \$8, strawberry cheesecake: \$14

- 4) The school that Maria goes to is selling tickets to a choral performance. On the first day of ticket sales the school sold 7 senior citizen tickets and 14 child tickets for a total of \$196. The school took in \$175 on the second day by selling 11 senior citizen tickets and 3 child tickets. What is the price each of one senior citizen ticket and one child ticket?

senior citizen ticket: \$14, child ticket: \$7

- 5) Sarawong and Ryan each improved their yards by planting daylilies and ivy. They bought their supplies from the same store. Sarawong spent \$136 on 13 daylilies and 7 pots of ivy. Ryan spent \$96 on 3 daylilies and 7 pots of ivy. Find the cost of one daylily and the cost of one pot of ivy.

daylily: \$4, pot of ivy: \$12

- 6) A plane traveled 2016 miles to Austin and back. The trip there was with the wind. It took 14 hours. The trip back was into the wind. The trip back took 21 hours. Find the speed of the plane in still air and the speed of the wind.

plane: 120 mph, wind: 24 mph

- 7) Julia and Pranav are selling cookie dough for a school fundraiser. Customers can buy packages of chocolate chip cookie dough and packages of double chocolate cookie dough. Julia sold 2 packages of chocolate chip cookie dough and 14 packages of double chocolate cookie dough for a total of \$236. Pranav sold 13 packages of chocolate chip cookie dough and 13 packages of double chocolate cookie dough for a total of \$364. Find the cost each of one package of chocolate chip cookie dough and one package of double chocolate cookie dough.

package of chocolate chip cookie dough: \$13, package of double chocolate cookie dough: \$15

- 8) A boat traveled 63 miles downstream and back. The trip downstream took 3 hours. The trip back took 21 hours. What is the speed of the boat in still water? What is the speed of the current?

boat: 12 mph, current: 9 mph

- 9) The local amusement park is a popular field trip destination. This year the senior class at High School A and the senior class at High School B both planned trips there. The senior class at High School A rented and filled 10 vans and 11 buses with 722 students. High School B rented and filled 10 vans and 14 buses with 878 students. Each van and each bus carried the same number of students. Find the number of students in each van and in each bus.

Van: 15, Bus: 52

- 10) A boat traveled 216 miles downstream and back. The trip downstream took 6 hours. The trip back took 9 hours. What is the speed of the boat in still water? What is the speed of the current?

boat: 30 mph, current: 6 mph

- 11) A boat traveled 63 miles downstream and back. The trip downstream took 3 hours. The trip back took 9 hours. What is the speed of the boat in still water? What is the speed of the current?

boat: 14 mph, current: 7 mph

- 12) The school that Maria goes to is selling tickets to the annual talent show. On the first day of ticket sales the school sold 10 senior citizen tickets and 13 child tickets for a total of \$185. The school took in \$65 on the second day by selling 5 senior citizen tickets and 1 child ticket. What is the price each of one senior citizen ticket and one child ticket?

senior citizen ticket: \$12, child ticket: \$5

- 13) The school that Willie goes to is selling tickets to a choral performance. On the first day of ticket sales the school sold 12 adult tickets and 5 student tickets for a total of \$138. The school took in \$120 on the second day by selling 6 adult tickets and 11 student tickets. What is the price each of one adult ticket and one student ticket?

adult ticket: \$9, student ticket: \$6

- 14) Yellowstone National Park is a popular field trip destination. This year the senior class at High School A and the senior class at High School B both planned trips there. The senior class at High School A rented and filled 14 vans and 10 buses with 536 students. High School B rented and filled 7 vans and 11 buses with 472 students. Each van and each bus carried the same number of students. How many students can a van carry? How many students can a bus carry?

Van: 14, Bus: 34

- 15) A boat traveled 294 miles downstream and back. The trip downstream took 14 hours. The trip back took 294 hours. What is the speed of the boat in still water? What is the speed of the current?

boat: 11 mph, current: 10 mph

- 16) Kayla and Scott each improved their yards by planting hostas and ivy. They bought their supplies from the same store. Kayla spent \$149 on 12 hostas and 13 pots of ivy. Scott spent \$128 on 14 hostas and 6 pots of ivy. Find the cost of one hosta and the cost of one pot of ivy.

hosta: \$7, pot of ivy: \$5

- 17) A boat traveled 238 miles downstream and back. The trip downstream took 14 hours. The trip back took 34 hours. Find the speed of the boat in still water and the speed of the current.

boat: 12 mph, current: 5 mph

- 18) The school that Lisa goes to is selling tickets to a choral performance. On the first day of ticket sales the school sold 13 senior citizen tickets and 10 child tickets for a total of \$175. The school took in \$170 on the second day by selling 12 senior citizen tickets and 10 child tickets. What is the price each of one senior citizen ticket and one child ticket?

senior citizen ticket: \$5, child ticket: \$11

- 19) A plane traveled 1188 miles to Singapore and back. The trip there was with the wind. It took 11 hours. The trip back was into the wind. The trip back took 18 hours. What is the speed of the plane in still air? What is the speed of the wind?

plane: 87 mph, wind: 21 mph

- 20) A plane traveled 1040 miles to Houston and back. The trip there was with the wind. It took 13 hours. The trip back was into the wind. The trip back took 20 hours. What is the speed of the plane in still air? What is the speed of the wind?

plane: 66 mph, wind: 14 mph