## Algebra 1

## 7.4 Extra Practice - Solve System Word Problems

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- The indoor climbing gym 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 3 vans and 4 buses with 156 students. High School B rented and filled 3 vans and 13 buses with 399 students. Every van had the same number of students in it as did the buses. How many students can a van carry? How many students can a bus carry?
- 2) The senior classes at High School A and High School B planned separate trips to the indoor climbing gym. The senior class at High School A rented and filled 6 vans and 4 buses with 182 students. High School B rented and filled 13 vans and 4 buses with 245 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?
- 3) The senior classes at High School A and High School B planned separate trips to the county fair. The senior class at High School A rented and filled 13 vans and 6 buses with 450 students. High School B rented and filled 13 vans and 1 bus with 270 students. Every van had the same number of students in it as did the buses. How many students can a van carry? How many students can a bus carry?
- 4) The water 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 9 vans and 2 buses with 227 students. High School B rented and filled 8 vans and 2 buses with 214 students. Every van had the same number of students in it as did the buses. How many students can a van carry? How many students can a bus carry?
- 5) The county fair 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 4 vans and 3 buses with 97 students. High School B rented and filled 4 vans and 10 buses with 258 students. Every van had the same number of students in it as did the buses. Find the number of students in each van and in each bus.
- 6) The senior classes at High School A and High School B planned separate trips to the state fair. The senior class at High School A rented and filled 2 vans and 3 buses with 193 students. High School B rented and filled 10 vans and 2 buses with 198 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?
- 7) Rob's school is selling tickets to a fall musical. On the first day of ticket sales the school sold 1 senior citizen ticket and 2 student tickets for a total of \$32. The school took in \$144 on the second day by selling 11 senior citizen tickets and 6 student tickets. Find the price of a senior citizen ticket and the price of a student ticket.

- 8) 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 4 vans and 7 buses with 323 students. High School B rented and filled 1 van and 14 buses with 534 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?
- 9) The senior classes at High School A and High School B planned separate trips to New York City. The senior class at High School A rented and filled 2 vans and 5 buses with 204 students. High School B rented and filled 8 vans and 14 buses with 612 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) Brenda's school is selling tickets to a play. On the first day of ticket sales the school sold 2 senior citizen tickets and 2 child tickets for a total of \$32. The school took in \$125 on the second day by selling 10 senior citizen tickets and 5 child tickets. Find the price of a senior citizen ticket and the price of a child ticket.
- 11) Jose and Emily each improved their yards by planting rose bushes and shrubs. They bought their supplies from the same store. Jose spent \$204 on 14 rose bushes and 6 shrubs. Emily spent \$144 on 5 rose bushes and 14 shrubs. Find the cost of one rose bush and the cost of one shrub.
- 12) 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 11 vans and 14 buses with 566 students. High School B rented and filled 6 vans and 6 buses with 258 students. Every van had the same number of students in it as did the buses. How many students can a van carry? How many students can a bus carry?
- 13) Jill and Chelsea each improved their yards by planting grass sod and ivy. They bought their supplies from the same store. Jill spent \$85 on 7 ft<sup>2</sup> of grass sod and 5 pots of ivy. Chelsea spent \$80 on 8 ft<sup>2</sup> of grass sod and 4 pots of ivy. What is the cost of one ft<sup>2</sup> of grass sod and the cost of one pot of ivy?
- 14) Mei and Natalie are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of shiny wrapping paper. Mei sold 3 rolls of plain wrapping paper and 2 rolls of shiny wrapping paper for a total of \$44. Natalie sold 14 rolls of plain wrapping paper and 5 rolls of shiny wrapping paper for a total of \$136. What is the cost each of one roll of plain wrapping paper and one roll of shiny wrapping paper?
- 15) Mark and Kayla each improved their yards by planting daylilies and ivy. They bought their supplies from the same store. Mark spent \$104 on 12 daylilies and 11 pots of ivy. Kayla spent \$82 on 14 daylilies and 3 pots of ivy. What is the cost of one daylily and the cost of one pot of ivy?

## Answers to 7.4 Extra Practice - Solve System Word Problems (ID: 1)

- 1) Van: 16, Bus: 27
- 27 2) Van: 9, Bus: 32
- 5) Van: 7, Bus: 238) Van: 16, Bus: 37
- 6) Van: 8, Bus: 599) Van: 17, Bus: 34
- 3) Van: 18, Bus: 36 4) Van: 13, Bus: 55
- 7) senior citizen ticket: \$6, student ticket: \$13
- 10) senior citizen ticket: \$9, child ticket: \$7
- 11) rose bush: \$12, shrub: \$6 12) Van: 12, Bus: 31
- 13) ft<sup>2</sup> of grass sod: \$5, pot of ivy: \$10
- 14) roll of plain wrapping paper: \$4, roll of shiny wrapping paper: \$16
- 15) daylily: \$5, pot of ivy: \$4