

Unit 3.4 Example Applications of linear systems

Period _____

- 1) Nicole's school is selling tickets to the annual dance competition. On the first day of ticket sales the school sold 6 senior citizen tickets and 1 child ticket for a total of \$77. The school took in \$107 on the second day by selling 6 senior citizen tickets and 7 child tickets. Find the price of a senior citizen ticket and the price of a child ticket.

- 2) 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 1 van and 6 buses with 277 students. High School B rented and filled 1 van and 2 buses with 97 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) Shawna and Julio each improved their yards by planting rose bushes and geraniums. They bought their supplies from the same store. Shawna spent \$108 on 9 rose bushes and 10 geraniums. Julio spent \$81 on 9 rose bushes and 7 geraniums. Find the cost of one rose bush and the cost of one geranium.

- 4) Huong and Asanji each improved their yards by planting daylilies and ornamental grass. They bought their supplies from the same store. Huong spent \$135 on 6 daylilies and 9 bunches of ornamental grass. Asanji spent \$47 on 6 daylilies and 1 bunch of ornamental grass. What is the cost of one daylily and the cost of one bunch of ornamental grass?

- 5) DeShawn and Maria are selling cookie dough for a school fundraiser. Customers can buy packages of chocolate chip cookie dough and packages of oatmeal cookie dough. DeShawn sold 3 packages of chocolate chip cookie dough and 5 packages of oatmeal cookie dough for a total of \$95. Maria sold 3 packages of chocolate chip cookie dough and 9 packages of oatmeal cookie dough for a total of \$159. What is the cost each of one package of chocolate chip cookie dough and one package of oatmeal cookie dough?

- 6) Lisa and Jack each improved their yards by planting hostas and ivy. They bought their supplies from the same store. Lisa spent \$78 on 10 hostas and 6 pots of ivy. Jack spent \$69 on 10 hostas and 3 pots of ivy. Find the cost of one hosta and the cost of one pot of ivy.
- 7) The school that Aliyah goes to is selling tickets to a fall musical. On the first day of ticket sales the school sold 4 adult tickets and 6 student tickets for a total of \$122. The school took in \$206 on the second day by selling 10 adult tickets and 6 student tickets. What is the price each of one adult ticket and one student ticket?
- 8) Rob and Chelsea are selling fruit for a school fundraiser. Customers can buy small boxes of oranges and large boxes of oranges. Rob sold 6 small boxes of oranges and 7 large boxes of oranges for a total of \$167. Chelsea sold 9 small boxes of oranges and 7 large boxes of oranges for a total of \$191. Find the cost each of one small box of oranges and one large box of oranges.
- 9) Shreya and Wilbur are selling pies for a school fundraiser. Customers can buy apple pies and blackberry pies. Shreya sold 7 apple pies and 10 blackberry pies for a total of \$306. Wilbur sold 7 apple pies and 4 blackberry pies for a total of \$198. Find the cost each of one apple pie and one blackberry pie.
- 10) Castel and Lea each improved their yards by planting rose bushes and shrubs. They bought their supplies from the same store. Castel spent \$133 on 3 rose bushes and 10 shrubs. Lea spent \$144 on 4 rose bushes and 10 shrubs. Find the cost of one rose bush and the cost of one shrub.

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- 1) Nicole's school is selling tickets to the annual dance competition. On the first day of ticket sales the school sold 6 senior citizen tickets and 1 child ticket for a total of \$77. The school took in \$107 on the second day by selling 6 senior citizen tickets and 7 child tickets. Find the price of a senior citizen ticket and the price of a child ticket.

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

- 2) 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 1 van and 6 buses with 277 students. High School B rented and filled 1 van and 2 buses with 97 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: 7, Bus: 45

- 3) Shawna and Julio each improved their yards by planting rose bushes and geraniums. They bought their supplies from the same store. Shawna spent \$108 on 9 rose bushes and 10 geraniums. Julio spent \$81 on 9 rose bushes and 7 geraniums. Find the cost of one rose bush and the cost of one geranium.

rose bush: \$2, geranium: \$9

- 4) Huang and Asanji each improved their yards by planting daylilies and ornamental grass. They bought their supplies from the same store. Huang spent \$135 on 6 daylilies and 9 bunches of ornamental grass. Asanji spent \$47 on 6 daylilies and 1 bunch of ornamental grass. What is the cost of one daylily and the cost of one bunch of ornamental grass?

daylily: \$6, bunch of ornamental grass: \$11

- 5) DeShawn and Maria are selling cookie dough for a school fundraiser. Customers can buy packages of chocolate chip cookie dough and packages of oatmeal cookie dough. DeShawn sold 3 packages of chocolate chip cookie dough and 5 packages of oatmeal cookie dough for a total of \$95. Maria sold 3 packages of chocolate chip cookie dough and 9 packages of oatmeal cookie dough for a total of \$159. What is the cost each of one package of chocolate chip cookie dough and one package of oatmeal cookie dough?

package of chocolate chip cookie dough: \$5, package of oatmeal cookie dough: \$16

- 6) Lisa and Jack each improved their yards by planting hostas and ivy. They bought their supplies from the same store. Lisa spent \$78 on 10 hostas and 6 pots of ivy. Jack spent \$69 on 10 hostas and 3 pots of ivy. Find the cost of one hosta and the cost of one pot of ivy.

hosta: \$6, pot of ivy: \$3

- 7) The school that Aliyah goes to is selling tickets to a fall musical. On the first day of ticket sales the school sold 4 adult tickets and 6 student tickets for a total of \$122. The school took in \$206 on the second day by selling 10 adult tickets and 6 student tickets. What is the price each of one adult ticket and one student ticket?

adult ticket: \$14, student ticket: \$11

- 8) Rob and Chelsea are selling fruit for a school fundraiser. Customers can buy small boxes of oranges and large boxes of oranges. Rob sold 6 small boxes of oranges and 7 large boxes of oranges for a total of \$167. Chelsea sold 9 small boxes of oranges and 7 large boxes of oranges for a total of \$191. Find the cost each of one small box of oranges and one large box of oranges.

small box of oranges: \$8, large box of oranges: \$17

- 9) Shreya and Wilbur are selling pies for a school fundraiser. Customers can buy apple pies and blackberry pies. Shreya sold 7 apple pies and 10 blackberry pies for a total of \$306. Wilbur sold 7 apple pies and 4 blackberry pies for a total of \$198. Find the cost each of one apple pie and one blackberry pie.

apple pie: \$18, blackberry pie: \$18

- 10) Castel and Lea each improved their yards by planting rose bushes and shrubs. They bought their supplies from the same store. Castel spent \$133 on 3 rose bushes and 10 shrubs. Lea spent \$144 on 4 rose bushes and 10 shrubs. Find the cost of one rose bush and the cost of one shrub.

rose bush: \$11, shrub: \$10