

NAME:

DATE:

A2.Q1.BERMEL/LEMBO:

SYSTEMS OF EQUATIONS

(DAY S1)

NOTES

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1. In a video game a player earns points for collecting Gold and Silver coins.

Player 1 collects 2 Gold and 3 Silver coins for a total of 16 points.

Player 2 collects 3 Gold and 2 Silver coins for a total of 19 points.

How many points are each the Gold and Silver coins worth in this game?

A. Write the system of equations.

B. Does $G = 3.5$ points and $S = 3$ points work for both players? Show.

C. Does $G = 4$ points and $S = 3.5$ points work for both players? Show.

D. Find the solution.

The solution is the unique combination that works for both players (both equations).

2. In a video game a player earns points for each badge collected and loses points for each skull that gets touched.

Player 1 collects 4 badges and runs into 2 skulls for a total point value of 200 points.

Player 2 collects 5 badges and runs into 3 skulls for a total point value of 240 points.

How many points is a badge worth and how many points is a skull worth?

A. Write the system of equations.

B. Does $B = 66$ points and $S = 30$ points work for both players? Show.

C. Does $B = 70$ points and $S = 40$ points work for both players? Show.

D. Find the solution.

The solution is the unique combination that works for both players (both equations).

3. Richard and Liam go to a Mexican restaurant. Richard orders 2 tacos and 2 enchiladas. Liam orders 3 tacos and 1 enchilada. Richards's bill was \$16.90. Liam's bill was \$17.45. Write, but do not solve, a system of equations that could be used to find the price of each enchilada and each taco?

4. Joe orders 3 pizzas and 2 orders breadsticks for a total of \$29.50. Michelle orders 2 pizzas and 3 orders of breadsticks for a total of \$23. How much does a pizza cost? Write, but do not solve, a system of equations that could be used to find how much an order of breadsticks cost?

5. Tickets for the theater are \$5 for the balcony and \$10 for the orchestra. If 600 tickets were sold and the total receipts were \$4750, how many tickets of each type were sold? Write, but do not solve, a system of equations that could be used to find the answer.

6. Tony sold 15 gym memberships for a total of \$585 a month. Student memberships cost \$25 per month and Adult memberships cost \$60 per month. Write, but do not solve, a system of equations that could be used to find how many of each membership Tony sold?