Math Virtual Learning

Algebra 1 S2

April 16th, 2020

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Lesson: April 16th, 2020

Learning Target:
Students will be able to solve systems of equations by using desmos.

Bell Ringer:
1. Solve the quadratic equations by factoring.

A) $6x^2 - 44x + 2 = -12$ B) $x^2 + 25 = -10x$

Hint: Get the quadratic equal to zero.
Answers are at the beginning of lesson video.

Today our main focus will be to get used to using Desmos to help us calculate solutions. We will be solving system of equations by graphing. First, we will have to set up the equations for each situation, and then we will graph them into Desmos.

Check out the video lesson to get started!

A hotel has 260 rooms. Some are singles, and some are doubles. The singles cost $35 and the doubles cost $60. Because of a comic-con convention, all of the hotel rooms are occupied. The sales for this night are $14,000. How many of each type of room does the hotel have?

x =   y =

Tickets for the homecoming dance cost $15 for a single ticket or $20 for a couple. Ticket sales totaled $2280, and 128 people attended. How many tickets of each type were sold?

Some students want to order shirts with their school logo. One company charges $9.65 per shirt plus a setup fee of $43. Another company charges $8.40 per shirt plus a $58 fee. For what number of shirts would the cost be the same?

Chase and Sara went to the candy store. Chase bought 5 pieces of fudge and 3 pieces of bubble gum for a total of $5.70. Sara bought 2 pieces of fudge and 10 pieces of bubble gum for a total of $3.60. Which system of equations could be used to determine the cost of 1 piece of fudge, f, and 1 piece of bubble gum, g?

You need at least 3 pounds of fruit to make muffins. Blueberries cost $4 per pound, strawberries cost $3 per pound, and you can spend at most $21 on fruit.

- Write a system of inequalities.
- Identify the solution area and what it means.
- Use the graph to determine whether you could buy:
  - 4 pounds blueberries and 1 pound strawberries?
  - 2 pounds blueberries and 5 strawberries?

Now your try.

Practice 1 - System of Equations

Practice 2 - System of Inequalities

● Use Desmos to help you graph the solution once you have the equations set up.

● You will get immediate feedback on whether you got the answer correctly.

● Challenge yourself to get 4 green dots in a row
  ○ *There are hints/walk through help for the problems.*

Additional Practice:
Click on the links below to get additional practice and to check your understanding!

[System of Equations Practice](#)

[System of Inequalities Practice](#)

[Extra Practice](#)