Mr. Gmerek

Algebra 2

Problem Set 1.4

1. Sometimes when dealing with equations, you will be asked to substitute different values for the same variable on many different occasions. When this happens, it is more efficient to solve the equation for one of the variables first.



* 1. Solve the following equation for y.
     1. 9x + 3y = -15
     2. **Using your answer to i**, find y when x = -2.



1. Solve for y.
   1. xy – x = 13
2. Mr. Gmerek’s Algebra 2 class is raising funds to help pay for their graphing calculators! They need a total of $5050 (T) so no student needs to pay any money. The class decides to put on a play at the school. They need to decide how much to charge for an adult ticket (a) and for a student ticket (s).



* 1. Write an equation to represent this situation where the price of an adult ticket is  (read, p sub one) and the price of a student ticket is.
  2. The students have decided to sell adult tickets for $8 and they expect 250 adults will come to their production of “Mr. Gmerek’s class…Oh How I Never Want to go Back.” How much should they charge per student ticket if they expect to sell 200 student tickets?
     1. 300 student tickets?
     2. 400 student tickets?



1. Solve 12x – 8y = -2 for y. Then find y when x = -5.



1. Solve 2y + xy = 6 for y.



1. Fill in the formula chart below (you can use your book!). Then, solve for the given variable.

|  |  |
| --- | --- |
| **Formula** | **Solve for…** |
| Distance traveled | t |
| Area of triangle | h |
| Area of rectangle | l |
| Perimeter of rectangle | w |
| Area of trapezoid |  |
| Area of circle | r |
| Circumference of Circle | r |