



Activity 2 [Page 1.3]

1. Angelo's pet rabbit weighs twice the weight of Carmen's pet rabbit.
 - a. Does Carmen's or Angelo's rabbit weigh the most?

 - b. Angelo's pet rabbit weighs 12 pounds. Write an equation that could be used to find the weight, w , of Carmen's rabbit. Use the equation to find the weight of Carmen's rabbit. Does your answer seem reasonable? Why or why not?

 - c. Angelo's pet rabbit weighs 2 pounds less than twice the weight, x , of Simon's pet rabbit. Which rabbit weighs the most, Carmen's or Simon's? Explain your thinking.

 - d. Create each of the following equations using the file and find the solutions. Which equation seems reasonable to find the weight of Simon's rabbit and gives a reasonable solution?
 - i. $12 = 2x + 2$
 - ii. $12 = 2x - 2$
 - iii. $x - 12 = 2$
 - iv. $w - 2 = 12$

2. Decide whether the following statements are true or false. Give an example to support your thinking. (You may want to use the file to find an example.)
 - a. Some equations have more than one solution.

 - b. Some equations do not have any solutions.



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- c. Some expressions have an infinite number of solutions.

- d. The values of some expressions will always be even numbers.



Activity 3 [Page 1.5]

1. Write an expression that represents each situation. Let x be the age of Sol's brother.
 - a. Sol is one year away from being twice as old as his brother.

 - b. Summer is three years older than Sol's brother.

 - c. Sol's dad is five times as old as Sol's brother.

 - d. Sol's mom is 5 years younger than Sol's dad.

2. If Sol is 17 years old, use your work in the question above and write equations to help you find the ages of his mom, dad, brother and sister. You may use the file to solve the equations.
 - a. Find Sol's brother's age.

 - b. Find the ages of Summer, Sol's dad, and Sol's mom.



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3. A ski resort had a 27-inch snow base at the beginning of the week and six days later it had 42 inches of snow. Let x represents the average number of inches of snow per day over a six-day period.
- What does $2x$ represent? $6x$?
 - Which of the equations $6x = 42$, $6x + 27 = 42$ and $6x - 27 = 42$ seem reasonable to represent the total amount of snow at the resort at the end of the sixth day? You might want to use the file to help you figure out your answer. Explain your reasoning.
 - The six-day report for four other ski resorts is in the chart. Which resort do you think had the greatest average amount of snow over the six days? The least amount? Explain your reasoning.

Resort	Snow base (inches)	Average snowfall per day (inches)	Depth at end of six days (inches)
Ski Run	32		54
DownHill	25		40
Creekside	34		48
Mountain Run	24		32

- Use the file to help find the solution for the average amount of snow per day at each of the resorts. Explain how you would have to adjust your equations in each case.