

UNIT 2 Project

Demonstrate your knowledge by giving clear, concise solutions to each problem. Be sure to include all relevant drawings and justify your answers (show all your work). You may show your solution in more than one way to investigate beyond the requirements of the problem.

1. Use the equation $4x + 10 = 32$ for parts a – d.
 - a. Add 4 to each side of the equation. Tell, in your own words, how you know that the two sides of the equation are still equal.
 - b. How are the solutions of the original equation and the equation in part a related? What does the term *equivalent equations* mean?
 - c. Use subtraction, multiplication, and division to form three equations equivalent to the original equation.
 - d. Solve the original equation. Explain each step in finding the solution.
2. Use the equation $\frac{1}{2}(x - 4) = \frac{1}{3}x + 2$ for parts a – c.
 - a. How can you eliminate the fraction from each side of the equation to make finding the solution easier?
 - b. Write a word problem for the equation.
 - c. Solve the equation. Explain each step and give the meaning of the answer according to the word problem you wrote.
3. Solve $ry + s = tx - m$ for y . Explain each step in your solution.
 - a. Would there be any limitations for the value of each variable? If so, explain the limitation.