



Systems of Equations

We've Got Spirit Some cheerleaders are going to sell spirit bracelets and foam fingers to raise money for traveling to away games.

- Two companies, Spirit for You and Go Team, are interested in providing the foam fingers. The cheerleaders plan to sell 100 foam fingers. Based on this information, which company should they choose? Explain your reasoning.

| Company | Design fee | Cost per item |
|----------------|------------|---------------|
| Spirit for You | \$35 | \$2.50 |
| Go Team | \$20 | \$3.00 |

INTERVENTION

Scaffolding Questions

- What are the variables in this problem situation?
 - The cheerleaders sold foam fingers for \$5 and spirit bracelets for \$4. They sold 40 more foam fingers than bracelets, and they earned \$965. Write a system of equations to describe this situation.
- How do you calculate total sales?
 - Solve this system using at least two different methods. Explain each method.
- What are the possible ways that you can solve a system of equations?
 - Using the company you chose in Problem 1, how much profit did the cheerleaders make from the foam fingers alone? (*Hint: profit = amount earned – expenses*)
- What are expenses?
 - What is the maximum price the cheerleaders could pay for each spirit bracelet in order to make a total profit of \$500?

