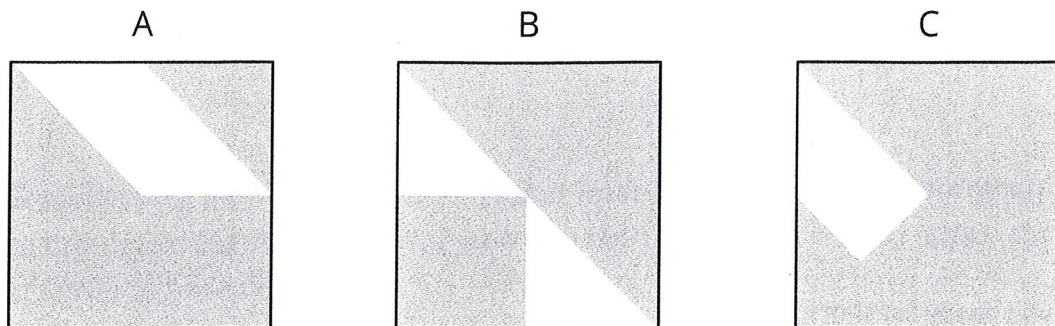


Lesson 12: Solutions to Linear Equations

Let's think about what it means to be a solution to a linear equation with two variables in it.

12.1: Estimate Area

Which figure has the largest shaded region?



12.2: Apples and Oranges

At the corner produce market, apples cost \$1 each and oranges cost \$2 each.

- Find the cost of:
 - 6 apples and 3 oranges
 - 4 apples and 4 oranges
 - 5 apples and 4 oranges
 - 8 apples and 2 oranges
- Noah has \$10 to spend at the produce market. Can he buy 7 apples and 2 oranges? Explain or show your reasoning.
- What combinations of apples and oranges can Noah buy if he spends all of his \$10?

4. Use two variables to write an equation that represents \$10-combinations of apples and oranges. Be sure to say what each variable means.

5. What are 3 combinations of apples and oranges that make your equation true? What are three combinations of apples and oranges that make it false?

Are you ready for more?

1. Graph the equation you wrote relating the number of apples and the number of oranges.
2. What is the slope of the graph? What is the meaning of the slope in terms of the context?
3. Suppose Noah has \$20 to spend. Graph the equation describing this situation. What do you notice about the relationship between this graph and the earlier one?

