

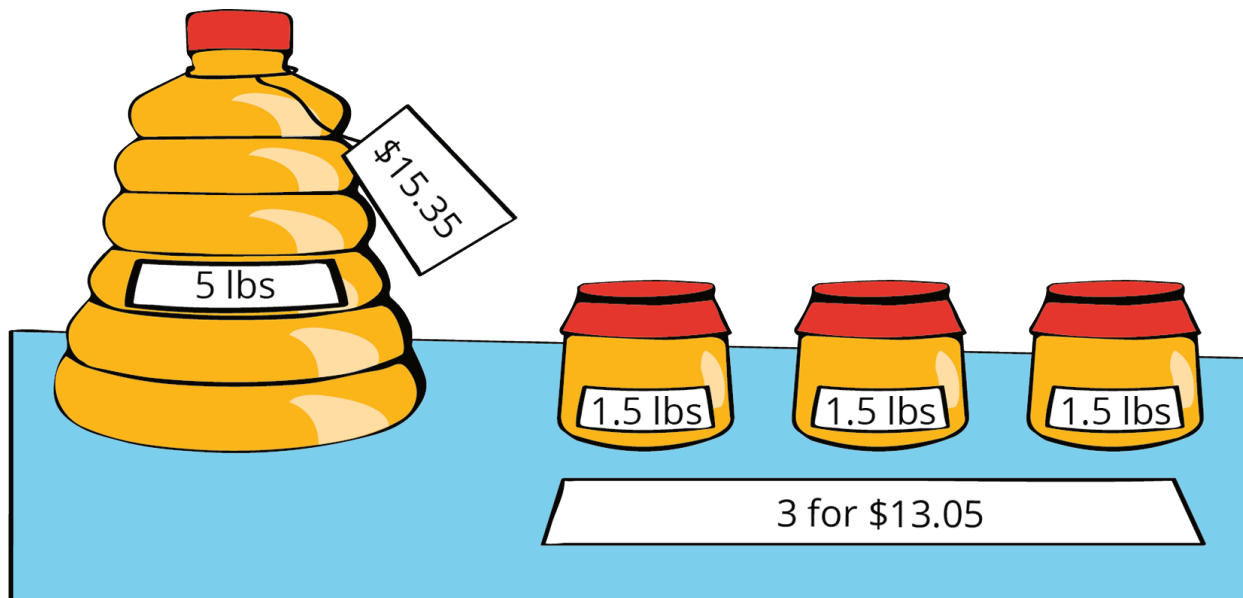
Unit 4 Lesson 17: Two Related Quantities, Part 1

1 Which One Would You Choose? (Warm up)

Student Task Statement

Which one would you choose? Be prepared to explain your reasoning.

- A 5-pound jug of honey for \$15.35
- Three 1.5-pound jars of honey for \$13.05



2 Painting the Set

Student Task Statement

Lin needs to mix a specific shade of orange paint for the set of the school play. The color uses 3 parts yellow for every 2 parts red.

1. Complete the table to show different combinations of red and yellow paint that will make the shade of orange Lin needs.

| cups of red paint (r) | cups of yellow paint (y) | total cups of paint (t) |
|---------------------------|------------------------------|-----------------------------|
| 2 | 3 | |
| 6 | | |
| | | 20 |
| | 18 | |
| 14 | | |
| 16 | | |
| | | 50 |
| | 42 | |

2. Lin notices that the number of cups of red paint is always $\frac{2}{5}$ of the total number of cups. She writes the equation $r = \frac{2}{5}t$ to describe the relationship. Which is the **independent variable**? Which is the **dependent variable**? Explain how you know.
3. Write an equation that describes the relationship between r and y where y is the independent variable.
4. Write an equation that describes the relationship between y and r where r is the independent variable.
5. Use the points in the table to create two graphs that show the relationship between r and y . Match each relationship to one of the equations you wrote.

