



7.RP.1 and 2a and 3

I can create rate tables and tell if they are proportional.

I can write an equation for rates.

Today you will need:

- Pencil
- Calculator
- Lab sheet 2.2 from Friday
- Class note page (I will pass out)

As a team, answer the questions on pages 45 and 46. Record the answers in your graph paper.

1. If you know the price of one pizza, how can you find the price of additional numbers of pizzas?

2. For each pizza place, use your strategy from part (1) to write an equation for the total price P for any number of pizzas n .

3. How does your equation help you solve problems such as those in Question A, part (4)?

Class Work Answers:

1. If you know the price of one pizza, you can multiply that price by any number of pizzas to find the total cost.

Royal Pizza: $P = 12n$

Howdy's Pizza: $P = 13n$

3. Substitute 400 or 96 for P in the Royal Pizza equation, then solve for n . You may need to round your answer to get a whole number of pizzas.

Howdy's listed price is valid only if you pick up the pizza. If you request delivery, they charge a flat \$5 fee for any number of pizzas.



1. a. Copy and complete the table below. Find the prices for Howdy's pizzas if you pick up and if they deliver.

Howdy's Pizza Prices							
Number of Pizzas	1	2	3	4	5	10	15
Price for Delivery							
Price for Pick-Up	\$13	\$26	\$39	\$52	\$65	\$130	\$195

Howdy's Pizza Prices							
Number of Pizzas	1	2	3	4	5	10	15
Price if Howdy's Delivers	\$18	\$31	\$44	\$57	\$70	\$135	\$200
Price for Pick Up	\$13	\$26	\$39	\$52	\$65	\$130	\$195

b. Describe the patterns you see in the table.

Homework:

part C1b of class work

(at least three patterns, no online answer key)

2.2 Comparing Pizza Prices

Scaling Rates

Julia is in charge of ordering pizzas for a camp dinner. She wonders whether to order the pizzas from Royal Pizza or Howdy's Pizza.

Each pizzeria allows customers to use the same pricing rate for fewer or more pizzas than the listed number.



You can use the ads to find the cost for any number of pizzas you want to purchase. One way to find the costs is to build a **rate table**. This is a table that shows the prices for different numbers of pizzas.

As a team, answer the questions on [page 46](#). Record the answers in your graph paper.

Number of Pizzas	1	2	3	4	5	10	15
Price if Howdy's Delivers	\$18	\$31	\$44	\$57	\$70	\$135	\$200
Price for Pick Up	\$13	\$26	\$39	\$52	\$65	\$130	\$195

b. Describe the patterns you see in the table.

Number of Pizzas	1	2	3	4	5	10	15
Price if Howdy's Delivers	\$18	\$31	\$44	\$57	\$70	\$135	\$200
Price for Pick Up	\$13	\$26	\$39	\$52	\$65	\$130	\$195

c. In Question B, part (2), you wrote an equation for the cost of pizza at Howdy's. How does the information represented by the equation show up in the table? Explain.

Class Work Answers:

c. 1b. As the number of pizzas increase by 1, the cost increases by 13 (for both delivery and pick up).

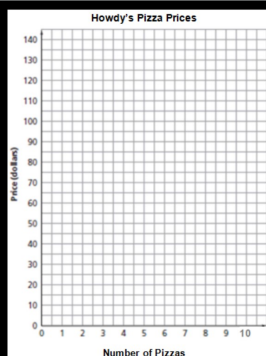
The cost for delivery is always \$5 more than the cost for pick up.

The pick up costs can be scaled up, but the delivery costs cannot be scaled up.

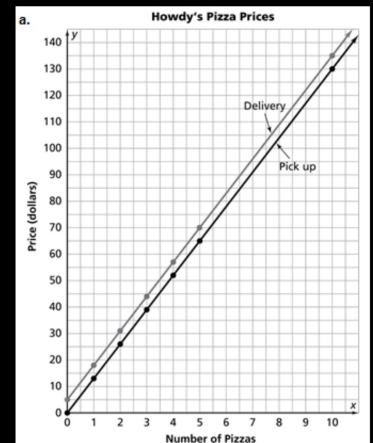
c. The equation is only for the pick up costs, it can find the cost for any number of pizzas (\$13 per pizza).

Number of Pizzas	1	2	3	4	5	10	15
Price if Howdy's Delivers	\$18	\$31	\$44	\$57	\$70	\$135	\$200
Price for Pick Up	\$13	\$26	\$39	\$52	\$65	\$130	\$195

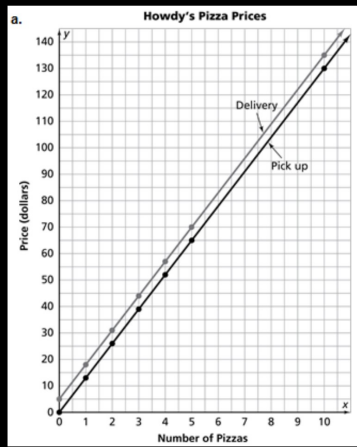
2. a. On the same coordinate plane, plot the data for Howdy's prices with no delivery fee and with the delivery fee.



b. How are the graphs similar? How are they different?



c. For each graph, which coordinate pair represents how much one pizza costs? how much zero pizzas cost?



Class Work Answers:

C. 2.

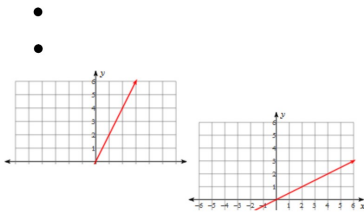
a. They are both straight lines.
The lines are parallel to each other.
The line for the delivery cost starts higher on the graph.

b. Pick Up line:
(1, 13) represents the cost of one pizza.
(0, 0) represents the cost of zero pizzas.

Delivery line:
(1, 18) represents the cost of one pizza.
(0, 5) represents the cost of zero pizzas.

A Proportional Relationship

the graph:



the table:

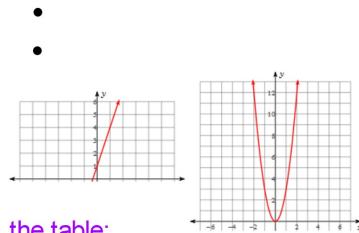
Number of Pizzas	1	2	3	4	5	10	15
Price for Pick Up	\$13	\$26	\$39	\$52	\$65	\$130	\$195

$$\frac{1}{13} = \frac{2}{26}$$

NOT

A Proportional Relationship

the graph:



the table:

Number of Pizzas	1	2	3	4	5	10	15
Price if Howdy's Delivers	\$18	\$31	\$44	\$57	\$70	\$135	\$200

$$\frac{1}{18} \neq \frac{2}{31}$$

Homework:

p.52 #8