

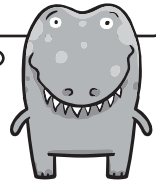
**Pizza Party****Your Challenge**

You and some of your friends order small pizzas and eat equal shares.

- No one eats exactly  $\frac{1}{2}$  of a pizza, 1 whole pizza, or  $1\frac{1}{2}$  pizzas.
- Two full pizzas are too much for anyone to eat.
- After everyone has an equal share, there is  $\frac{1}{2}$  of a pizza left.
- Small pizzas have 6, 8, or 12 slices.

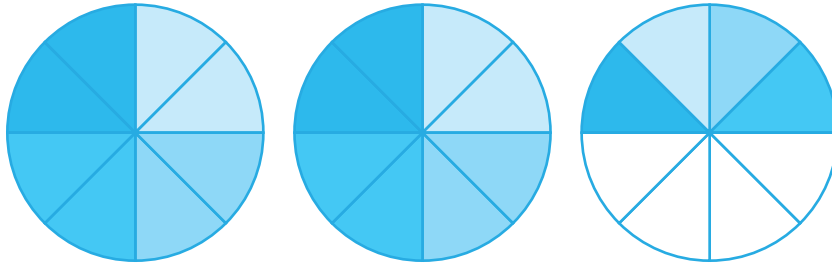
1. How many friends and pizzas could there have been, and how much pizza could each friend have eaten? Draw a picture on the **Recording Sheet** to show how the friends could have shared the pizza and write an equation to represent the situation.
2. Is there another way those friends could have shared the pizza? Show how you know on the **Recording Sheet**.

*What if all the pizzas do not have the same number of slices?*



# Pizza Party

## 1. Answers will vary. Possible answer shown.



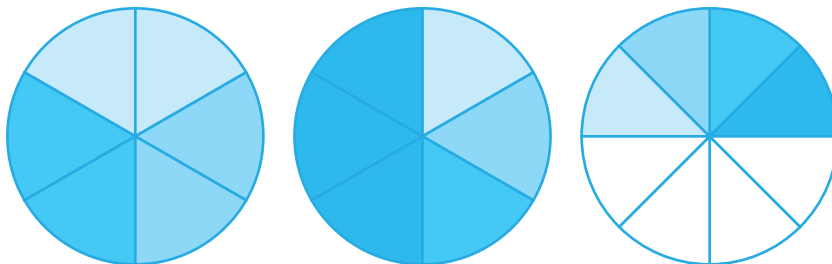
4 friends

3 pizzas

Each friend gets  $\frac{5}{8}$  of a pizza with  $\frac{1}{2}$  of a pizza left over.

$$\frac{5}{8} + \frac{5}{8} + \frac{5}{8} + \frac{5}{8} + \frac{1}{2} = 3$$

## 2. Answers will vary. Possible answer shown.



4 friends

3 pizzas

Each friend gets  $\frac{3}{6} + \frac{1}{8}$  of a pizza with  $\frac{1}{2}$  of a pizza left over.

$$\frac{3}{6} + \frac{3}{6} + \frac{3}{6} + \frac{3}{6} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{2} = 3$$

Plant Growth

Your Challenge

Plant	Height	Growth Per Week
A	4 inches	$\frac{1}{2}$ inch
B	$2\frac{1}{2}$ inches	$1\frac{1}{2}$ inches
C	6 inches	$\frac{3}{4}$ inch
D	$1\frac{3}{4}$ inches	$\frac{7}{8}$ inch

Medina buys each plant in the table. She cannot pick up the plants from the nursery until they are 8 inches tall, but she must pick them up before they are 10 inches tall. She wants to make as few trips to the nursery as possible.

Make a table showing how Medina could plan her trips to the nursery. Then answer the following questions:

1. If she makes no more than one trip per week, in which week will the first plant be ready for her to pick up?
2. When will the last plant be ready?
3. What is the fewest number of trips she can make, and when will she make them?

Be sure to show all your work on the **Recording Sheet**.



**Plant Growth**

Your Table:

Week 3	Plant C: $6 + \left(3 \times \frac{3}{4}\right) = 8\frac{1}{4}$
Week 4	Plant C: $8\frac{1}{4} + \frac{3}{4} = 9$ Plant B: $2\frac{1}{2} + \left(4 \times 1\frac{1}{2}\right) = 8\frac{1}{2}$
Week 5	Plant C: $9 + \frac{3}{4} = 9\frac{3}{4}$ Plant B: $8\frac{1}{2} + 1\frac{1}{2} = 10$
Week 6	
Week 7	
Week 8	Plant D: $1\frac{3}{4} + \left(8 \times \frac{7}{8}\right) = 8\frac{3}{4}$ Plant A: $4 + \left(8 \times \frac{1}{2}\right) = 8$

1. First plant (Plant C) will be ready in Week 3.

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2. The last plants (Plant A and Plant D) will be ready in Week 8.

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3. The fewest number of trips is 2 trips. She can pick up Plant B and Plant C in Week 4 or 5. She can pick up Plant A and Plant D in Week 8.



**Switching Places****Your Challenge**

1. Choose any two digits from 1 to 9. Replace  $A$  with one digit, and replace  $B$  with the other digit in each equation below and solve. What do you notice? Use pictures and words to explain what is happening on the **Recording Sheet**.

$$\frac{1}{A} \div B = \underline{\hspace{2cm}}$$

$$\frac{1}{B} \div A = \underline{\hspace{2cm}}$$

2. Choose any two digits from 1 to 9. Replace  $A$  with one digit, and replace  $B$  with the other digit in each equation below and solve. What do you notice? Use pictures and words to explain what is happening on the **Recording Sheet**.

$$A \div \frac{1}{B} = \underline{\hspace{2cm}}$$

$$B \div \frac{1}{A} = \underline{\hspace{2cm}}$$



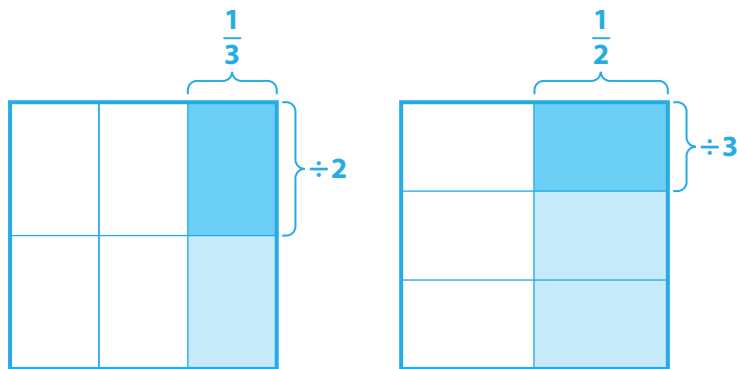
## Switching Places

1. Answers will vary, but both equations will have the same quotient. Pictures may show that the same diagram can be used for each equation. Sample answer shown.

$$\frac{1}{3} \div 2 = \frac{1}{6}$$

$$\frac{1}{2} \div 3 = \frac{1}{6}$$

The two quotients are the same. When you divide  $\frac{1}{3}$  into 2 equal parts or  $\frac{1}{2}$  into 3 equal parts you get  $\frac{1}{6}$ .



2. Answers will vary, but both equations will have the same quotient. Pictures should show the same quotient. Sample answer shown.

$$4 \div \frac{1}{5} = 20$$

$$5 \div \frac{1}{4} = 20$$

The two quotients are the same. When you divide 4 wholes into 5 equal parts or 5 wholes into 4 equal parts, you get a total of 20 parts.

