

## CRITICALLY ACCLAIMED DESSERTS

### Teaching Guidelines

**Subject:** Mathematics

**Topics:** Statistics and Probability

**Grades:** 4 - 8

**Concepts:**

- Understands the concept "chart"

**Knowledge and Skills:**

- Understands the purpose and value of organizing information in charts

**Materials:** None

Procedure: The activity is best done by students individually or in teams of two.

Distribute the handout and ensure that students understand what the assignment is. Emphasize the fact that the key to solving the mystery is organizing the data.

Discuss the first two clues and ensure all students understand how it is shown in the chart. Then have the students begin the activity and circulate to offer guidance as needed.

*Answer: When clues "b" and "c" are added to the chart, it should look like this:*

	McDuff	Smith	Lisboa	Potts	Ellis
<i>Pudding</i>					
<i>Cheesecake</i>	X	X	X		X
<i>Pie</i>	X				
<i>Ice Cream</i>	X				
<i>Strudel</i>		X			

*The chart now shows that the only possible critic for cheesecake is Mr. Potts. This means also that Mr. Potts does not prefer any other desserts. When this information is added to the chart, it looks like this:*

	McDuff	Smith	Lisboa	Potts	Ellis
<i>Pudding</i>				X	
<i>Cheesecake</i>	X	X	X	+	X
<i>Pie</i>	X			X	
<i>Ice Cream</i>	X			X	
<i>Strudel</i>		X		X	

Entering clue “d” gives this result:

	McDuff	Smith	Lisboa	Potts	Ellis
<i>Pudding</i>		X		X	
<i>Cheesecake</i>	X	X	X	+	X
<i>Pie</i>	X	X		X	
<i>Ice Cream</i>	X			X	
<i>Strudel</i>		X		X	

We see that Mrs. Smith prefers ice cream:

	McDuff	Smith	Lisboa	Potts	Ellis
<i>Pudding</i>		X		X	
<i>Cheesecake</i>	X	X	X	+	X
<i>Pie</i>	X	X		X	
<i>Ice Cream</i>	X	+	X	X	X
<i>Strudel</i>		X		X	

Carrying on in this fashion, the result is this:

	McDuff	Smith	Lisboa	Potts	Ellis
<i>Pudding</i>	X	X	X	X	+
<i>Cheesecake</i>	X	X	X	+	X
<i>Pie</i>	X	X	+	X	X
<i>Ice Cream</i>	X	+	X	X	X
<i>Strudel</i>	+	X	X	X	X

## Critically Acclaimed Desserts

Chef Von Frugel had a list of the favorite desserts of New York's five biggest food critics. But he lost the list.

These are the five desserts.



Pudding



Cheesecake



Pie



Ice Cream



Strudel

These are the five critics.



Mr. McDuff



Mrs. Smith



Mrs. Lisboa



Mr. Potts



Miss Ellis

All the chef can remember is that each critic prefers a different dessert, and the clues below. Can you help him figure out which critic prefers which dessert?

- Sometimes, instead of her favorite dessert, Mrs. Smith eats strudel.
- The person who prefers cheesecake is a man.
- Mr. McDuff doesn't like cheesecake, pie or ice cream.
- Mrs. Smith never orders desserts that start with a "p".
- The person who prefers pudding is a woman.
- Mrs. Lisboa hates pudding.

Use this chart to organize the information in the clues. An "X" means that a person does not prefer that dessert, and a "+" means that a person does prefer that dessert. The first clue has already been put into the chart.

	Mr. McDuff	Mrs. Smith	Mrs. Lisboa	Mr. Potts	Miss Morgan
Pudding					
Cheesecake					
Pie					
Ice Cream					
Strudel		X			