



# Math in real life

Math on your birthday

# Dutch apple pie



## Ingredients

### Crust

- 1 cup Gold Medal™ all-purpose flour
- 1/2 teaspoon salt
- 1/3 cup plus 1 tablespoon shortening
- 2 to 3 tablespoons cold water

### Filling

- 8 cups sliced cored peeled apples
- 1/2 cup granulated sugar
- 1/4 cup Gold Medal™ all-purpose flour
- 1/4 teaspoon ground cinnamon
- 1 tablespoon lemon juice

### Topping

- 1/2 cup unsalted butter, softened
- 1 cup Gold Medal™ all-purpose flour
- 2/3 cup packed brown sugar
- 1 tablespoon granulated sugar

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Double the recipe  
All 1 cup ingredients  
get 2 green cups

The 8 cups apples just  
now gets 16 cups

All 1/2 sizes now take the  
green measure of 1 cup

The 1/3 sizes just take  
the orange 1/3 cup twice

The 1/4 size now take 2  
blue 1/4 measures

The 2/3 size now needs  
4/3 so you can use the  
orange measure cup four  
times or one green (1  
cups is 3/3) plus 1  
orange.



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### Topping

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- 1 cup Gold Medal™ all-purpose flour
- 2/3 cup packed brown sugar
- 1 tablespoon granulated sugar

half the recipe

All 1 cup ingredients  
now get a red measure

The 8 cups apples just  
now gets 4 cups

All 1/2 sizes now take the  
blue measure of 1/4 cup

The 1/3 sizes need 1/6  
so we buy an extra  
measure or see on the  
next slide

The 1/4 size now take 1  
yellow 1/8 measures

The 2/3 size now needs  
1/3 so you can use the  
orange measure



# Dutch apple pie

How to get  $\frac{1}{6}$  when you cannot find a suitable measure??

Fill the  $\frac{1}{2}$  cup with shortening  
Next scoop out  $\frac{1}{3}$  cup of the shortening and then  
What is left in the  $\frac{1}{2}$  cup will be  $\frac{1}{6}$

In technical terms:

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

So fill the red and scoop out with the orange and what is left  
in the red measuring cup will be your  $\frac{1}{6}$  shortening

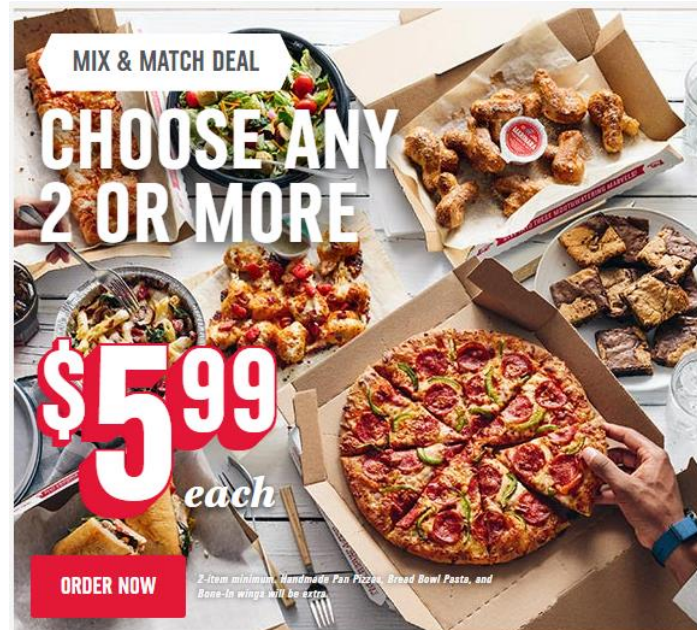


# Pizza



16 people are coming  
All will eat 2 slices  
 $16 \times 2 = 32$

Dominos cuts pizzas in 8 pieces  
So  $32 \div 8 = 4$  you'll need 4 pizzas



# Pizza



OK fine 6 vegetarians they need  $6 \times 2 = 12$  slices

10 others they need  $10 \times 2 = 20$  slices

So we need  $12 \div 8$  which is 1 and something so we need 2 veggie pizzas and will have 16 slices, 12 eaten by the vegetarians and 4 go in the freezer

For the others we need  $20 \div 8$  which is more than 2 so we need 3 pizzas that gives us  $3 \times 8 = 24$  slices and so 20 will get eaten and the other four go in the freezer also.

