Pizza Fractions: Finding fractions of a given amount

For this activity the children will need a collection of ‘pizza’ sheets. These can just be A4 sheets with a large circular pizza shape in the middle. There should be different sheets for different divisions of pizza, for example

![Diagram of half a pizza](image)

…to represent halves. The children then use some form of counters as pepperoni. For example to find the answer to ‘What is ½ of 10?’ the children would place 10 pepperoni equally on the pizza pieces.

![Diagram of half a pizza with counters](image)

To make these sheets more suitable for use with junior children change fractions of the form 3 / 4 to be written as ¾.
Pizza Place Challenge

1. Fred and Bob cut their pizza into half. Put 10 pepperoni on so that they each have the same amount. 
What is \( \frac{1}{2} \) of 10?

2. Danni and Lucy cut their pizza into half. Put 6 pepperoni on so that they each have the same amount. 
What is \( \frac{1}{2} \) of 6?

3. Derek and Arnold cut their pizza into half. Put 14 pepperoni on so that they each have the same amount. 
What is \( \frac{1}{2} \) of 14?

4. Mike and Tina cut their pizza into half. Put 20 pepperoni on so that they each have the same amount. 
What is \( \frac{1}{2} \) of 20?

5. Denise and Glenn cut their pizza into half. Put 18 pepperoni on so that they each have the same amount. 
What is \( \frac{1}{2} \) of 18?
6. Fred and Bob cut their pizza into thirds. Put 9 pepperoni on so that each slice has the same amount.
What is $1/3$ of 9?

7. Danni and Lucy cut their pizza into quarters. Put 12 pepperoni on so that each slice has the same amount.
What is $1/4$ of 12?

8. Derek and Arnold cut their pizza into thirds. Put 15 pepperoni on so that each slice has the same amount.
What is $1/3$ of 15?

9. Mike and Tina cut their pizza into fifths. Put 20 pepperoni on so that each slice has the same amount.
What is $1/5$ of 20?

10. Denise and Glenn cut their pizza into thirds. Put 18 pepperoni on so that each slice has the same amount.
What is $1/3$ of 18?
Pizza Place Challenge 3

*Use your pizzas and pepperoni to help you answer these questions.*

1. What is $\frac{1}{2}$ of 18?
2. What is $\frac{1}{4}$ of 8?
3. What is $\frac{1}{3}$ of 6?
4. What is $\frac{1}{5}$ of 10?
5. What is $\frac{1}{6}$ of 18?
6. What is $\frac{1}{2}$ of 12?
7. What is $\frac{1}{3}$ of 12?
8. What is $\frac{1}{4}$ of 16?
9. What is $\frac{1}{3}$ of 21?
10. What is $\frac{1}{4}$ of 24?
11. Fred and Bob cut their pizza into thirds. Put 12 pepperoni on so that each slice has the same amount.

What is 1/3 of 12?

Bob has two of the slices (two of the thirds). How many pepperoni does he eat?

What is 2/3 of 12?

12. Danni and Lucy cut their pizza into quarters. Put 16 pepperoni on so that each slice has the same amount.

What is 1/4 of 16?

If Danni ate two slices of pizza then how much pepperoni would she eat?

What is 2/4 of 16?

If Lucy grabbed three pieces first, though, and ate them then how many pepperoni would she have eaten?

What is 3/4 of 16?
13. Derek and Arnold cut their pizza into thirds. Put 21 pepperoni on so that each slice has the same amount.

What is 1/3 of 21?
Derek decided to eat two of the pizza slices. How many pepperoni did he eat?

What is 2/3 of 21?

14. Mike and Tina cut their pizza into fifths. Put 25 pepperoni on so that each slice has the same amount.

What is 1/5 of 25?
Tina had three of the slices of pizza. How much pepperoni did she eat?

What is 3/5 of 25?
Mike had the two remaining slices. How much pepperoni did he eat?

What is 2/5 of 25?

15. Denise and Glenn cut their pizza into thirds. Put 9 pepperoni on so that each slice has the same amount.

What is 1/3 of 9?
Glenn ate 6 pieces of pepperoni. How many slices of pizza did he eat?
Pizza Place Challenge 5

*Use your pizzas and pepperoni to help you answer these questions.*

*Set your work out like this:*
e.g. What is $\frac{3}{4}$ of 8?  
$\frac{1}{4}$ of 8 = 2  
so $\frac{3}{4}$ of 8 = $3 \times 2 = 6$

1. What is $\frac{3}{4}$ of 12?  
2. What is $\frac{2}{5}$ of 15?  
3. What is $\frac{5}{6}$ of 12?  
4. What is $\frac{2}{5}$ of 25?  
5. What is $\frac{2}{3}$ of 30?  
6. What is $\frac{4}{6}$ of 24?  
7. What is $\frac{2}{3}$ of 24?  
8. What is $\frac{3}{6}$ of 12?  
9. What is $\frac{2}{4}$ of 12?