

Name: _____

Catering Canapes

You are the head waitperson at a fancy restaurant. There is a busy function on in the restaurant tonight. To start off, the chef is serving canapes to the guests.

It's your job to bring round trays of canapes to groups of people prior to the main meal. The canapes are delicious... and very popular.

All the trays of canapes have the same number of canapes on them.

You notice that when you shared the canapes on the trays equally between **2** people, there was **one** left over.

But when you shared them equally between 3 people there were two left over.

How many canapes might there have been on each tray?



Working and strategy space

- Is there only one solution?
- How many solutions to this problem can you find?
- Talk to a friend about the strategies you used to solve the problem.

Now the chef has changed the number of canapes placed on the platters.

You now notice that when they are shared equally between 3 people there are no canapes left over. However, when you shared them equally between 4 equal people there was one left over.

Now how many canapes might there have been on each tray?

Working and strategy space

- Is there only one solution?
- How many solutions to this problem can you find?
- Talk to a friend about the strategies you used to solve the problem.

Write some division number sentences that describe the different solutions *mathematically*. See if you can find *more than one way to write each division number sentence*.

Chef and his kitchen staff have just finished 127 new canapes. There are 8 platters available, but kitchen don't need to use all them if they don't want to (eg. they could use 3, or 4, or 5, or 6, or 7...).

Find two or three different ways of arranging your canapes on the platters.

Make sure you talk about any leftovers or '*remainders*' for each of your solutions.

Record your solutions below:



Working and strategy space

- How many solutions to this problem did you find?
- Talk to a friend about the strategies you used to solve the problem.

The chef is now questioning whether your solution for the canapes on the platters is correct.

Choose one of your canapes arrangements from the above and write down a way of *proving* to the chef that your thinking is correct.

(In your proof, words such as the 'divisor', the 'dividend' and the 'quotient' might be useful.)

Working and strategy space

At the end of the evening, the remainders (leftover) canapes you had from one of your above arrangements (**choose one!**) are shared equally amongst you and three other waitstaff.

Explain what **amount** of the canapes each of the waitstaff will get to eat. Remember your answer is likely to be a **fraction**.

Explain your solution using mathematical working.



Working and strategy space