



Lesson 2 – 14.07.2020

LO: Problem Solving

Success Criteria:

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| 1. Draw 20 plain biscuits. |
| 2. Decorate them according to what Patrick did e.g. icing only on every second biscuit (miss one, ice one, miss one, ice one...) |
| 3. Write down which biscuits had no decoration, and which had 3 decorations. |

Patrick decorated 20 biscuits to take to the end of year party.



He lined them up and put **icing on every second biscuit**.

Then he put **a cherry on every third biscuit**.

Then he put **a chocolate button on every fourth biscuit**.

So there was nothing on the first biscuit.

How many other biscuits had no decoration?

Did any biscuits get all three decorations?



Getting started:

It would be a good idea to draw the biscuits to keep track of what toppings go on which biscuits.

Maybe you could even bake them and decorate them just like Patrick did!

Send your solutions on Class Dojo so we can see what you found out!

1. Begin with Task 1– try to use a **systematic method** (using a pattern to make sure you get all the possible answers) and **find as many ways as you can**
2. Then have a go at Task 2 – use a **systematic method to find as many ways as possible** and make sure **all 3 numbers are different and odd**.

Task 1

Monster

Alesha bought a monster using only silver coins.
It cost her 45p.



There are nine different ways to pay 45p exactly
using only silver coins.

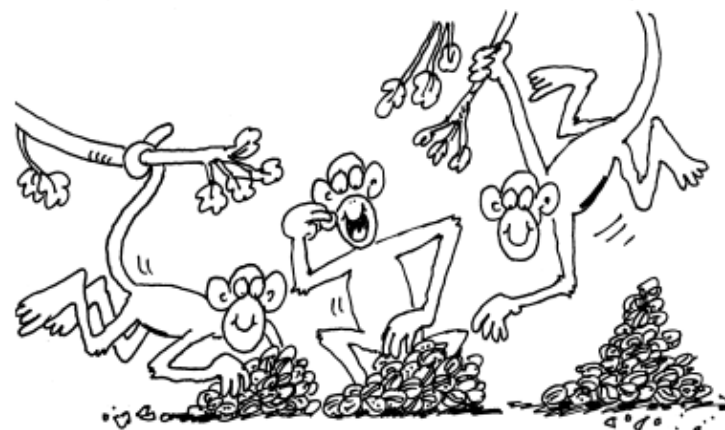
Find as many as you can.

What if the monster cost 50p?

How many different ways are there to pay now?

Task 2

Three monkeys



Three monkeys ate a total of 25 nuts.
Each of them ate a different odd number of nuts.

How many nuts did each of the monkeys eat?
Find as many different ways to do it as you can.

Challenge: What if the monkeys ate 24 nuts, with each of them eating a different **even** number of nuts?

