

Use three of the numbers below and add them up. How many different sums and answers can you make?



I can see $2 + 2 + 4 = 8$, but there are lots more.
You can use each number up to 3 times if you like!

2

4

6

8

What do you notice about all your answers?



Answers

These mini investigations are all about logical thinking, trying things out, working in a systematic way, recording information and checking that results have not been duplicated. They should also be fun. Most young children will not work in a systematic way, will repeat results and miss results – that is to be expected. But, over time they should begin to develop these skills. This investigation is good at encouraging working in a methodical way, starting with the smallest numbers, or starting with the largest numbers.

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Possibilities:

$$\begin{array}{llll} 2 + 2 + 2 = 6 & 2 + 2 + 4 = 8 & 2 + 2 + 6 = 10 & 2 + 2 + 8 = 12 \\ 2 + 4 + 4 = 10 & 2 + 4 + 6 = 12 & 2 + 4 + 8 = 14 & \\ 2 + 6 + 6 = 14 & 2 + 6 + 8 = 16 & & \\ 2 + 8 + 8 = 18 & & & \\ 4 + 4 + 4 = 12 & 4 + 4 + 6 = 14 & 4 + 4 + 8 = 16 & \\ 4 + 6 + 6 = 16 & 4 + 6 + 8 = 18 & & \\ 4 + 8 + 8 = 20 & & & \\ 6 + 6 + 6 = 18 & 6 + 6 + 8 = 20 & & \\ 6 + 8 + 8 = 22 & & & \\ 8 + 8 + 8 = 24 & & & \end{array}$$

All the answers are even.

(Remember: $2 + 4 + 6$ is the same as $6 + 4 + 2$)

Lots more like this on the MathSphere, 'It's All Figured Out' worksheet CD www.mathsphere.co.uk

Maths activities for young children at www.urbrainy.com