

Making a Difference

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There are a number of ways the digits 2, 5, 7, 8 can be placed in a subtraction sum like the one below:

$$\begin{array}{r} \boxed{5} \boxed{7} \\ - \boxed{2} \boxed{8} \\ \hline \color{red}{2} \color{red}{9} \end{array}$$

→ In this example, the answer is 29.

Can you rearrange the four digits to find **ALL** the ([positive](#)) answers it is possible to make?

$$\begin{array}{r} \square \square \\ - \square \square \\ \hline \\ \hline \end{array}$$

Here are two follow-up questions you might like to consider:

- (1) Can you work out which four digits you need to start with to be able to get all the possible answers 7, 9, 11, 13, 18, 22, 29 and 31?
- (2) Can you show that, if we're only allowed to use consecutive digits (e.g. 5, 6, 7, 8), **31** is the largest possible answer and **7** is the smallest?