

Pity Four Fours

“How do you make the number **7**, just using the number **4** four times?”

(One possible answer: $7 = 4 + 4 - \frac{4}{4}$)

You have probably been asked something similar at some time during your mathematical life.

In fact, there are lots of other ways to make 7, including $7 = \frac{4!}{4} + \frac{4}{4}$ and $7 = (\sqrt{4} \times 4) - \frac{4}{4}$

This gives you a couple of nice Sneaky Tricks that may be new to you:

$$4! = 4 \times 3 \times 2 \times 1 = 24 \quad \text{and} \quad \sqrt{4} = 2$$

The Challenge:

Well here's the full Problem – all grown-up and really quite tricky in places:

“How d'you make all the numbers from 1 to 20, just using the number 4 four times?”

Write your answers on a separate sheet of paper and submit