Consecutive Seven

Start with the numbers from 0 - 20.

0	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20

Can you arrange these numbers into seven sets of three numbers, so that the totals of the sets are consecutive?

For example, one set might be $\{2, 7, 16\}$

$$2 + 7 + 16 = 25$$

And another might be $\{4, 5, 17\}$

$$4 + 5 + 17 = 26$$

As 25 and 26 are consecutive numbers these sets are the kind of thing that you need.

Once you've found a solution, here are some questions you might like to consider:

- Is there more than one possible set of seven consecutive totals? How do you know?
- Is there more than one way to make the seven totals?
- Could you make seven sets that all had the same total?
- Could you make seven sets whose totals went up in twos? Or threes? Or…