

What numbers can we make?

1, 3, 5, 7

$$1 + 3 + 5 + 7$$

$$7 + 7 + 1 + 1$$

$$3 + 3 + 5 + 5$$

$$3 + 3 + 3 + 7$$

$$5 + 5 + 5 + 1$$

$$= 16$$

I can't make 25 using six numbers because 25 is odd and we are trying to make it using an even number of odd numbers which is impossible because an even $\times$ odd = even and 25 is odd.

①, 4, 7, 10

When you choose three numbers you ^{get} choose a multiple of 3 with a minimum of three and a maximum of thirty because $3 \times \textcircled{1} = 3$ and $3 \times \textcircled{10} = 30$.

When you choose 4 numbers you get 1 more than a multiple of 3, with a minimum of 4 and a maximum of 40.

When you choose 5 numbers you get 2 more than a multiple of 3 with a minimum of 5 and a maximum of 50.

When you choose 6 numbers $\text{sum} = 3x + 3$
 x is a whole number $1 \leq x \leq 101$