

33

x	y
z	t

Sum is $100x + t + 11(y + z)$

Can't have even multiples of 11 + 1, 3, 5, 7, 9

Split (44, 396) into sets

(44, 45, ..., 54), (55, 56, ..., 65), ..., (385, ..., 395), 396

There 32 sets so at most

$$353 - \frac{32}{2} \times 5 = 273$$

All x, y, z, t distinct \Rightarrow except so

Can't have any multiple of 11.

Eliminate an extra 33

$$\therefore 273 - 33 = 240$$

Smallest poss is using 1, 2, 3, 4

$$2(10 \times 1 + 4) + 11(2 \times 3) = 83$$

Eliminate (44, 82) of which 44, 55, 66, 77

Eliminated ~~44, 55, 66, 77, 82, 83, 48, 35~~

Δ 44 + 1, 3, 5, 7, 9, 55 + 1, 3, 5, 7, 9, 66 + 1, 3, 5, 7, 9

77 + 1, 3, 5 eliminated

$$\therefore 82 + 1 - 44 - 4 - 18 = 83 - 66 = 17$$

$$\therefore 240 - 17 = 223$$