



AUSTRALIAN MATHS TRUST

AMC Challenge
Upper Primary: Years 5–6
Practice Problem

UP1: Letterboxes

A new block of flats is being built and Trudy is buying the letterbox numbers. The letterboxes are to be labelled from 190 to 212. How many zeros will she need to buy?

- a.** 22 **b.** 13 **c.** 12 **d.** 10 **e.** 4

Solutions

Alternative 1

A '0' will be required in the units place for 190, 200 and 210 (three '0's) and in the tens place for 200, . . . , 209 (ten '0's).
Hence (B)

Alternative 2

The '0's can be counted directly from a list:

190, 191, ... , 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212,
1 2 3 4 5 6 7 8 9 10 11 12 13

Hence (B)