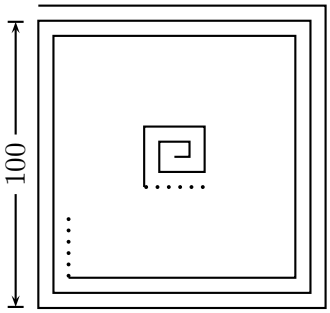
Errata for the 2011 SMO Solution Book

Updated: 24 April 2012

p7. Q28.



p12. Q16. Answer: 7981.

The total number of solutions is

$$\begin{aligned} & 3(1 \times 2 + 2 \times 3 + \cdots + 19 \times 20) + 1 \\ = {} & (2^3 - 1^3) + (3^3 - 2^3) + \cdots + (20^3 - 19^3) - 20 + 1 \\ = {} & 20^3 - 19 = 7981. \end{aligned}$$

p13. Q19. Answer: 256.

So $m = (5 - 1 - 2)^2 = 4$ and $M = (5 + 1 + 2)^2 = 64$. Thus, $m \times M = 256$.

p16. Q26. Answer: 3.

There are 3 cases: $(4, 1, 1, 1)$, $(3, 2, 1, 1)$ and $(2, 2, 2, 1)$.

Q28. Answer: 10403.

The broken line is constructed using "L", with lengths $2, 4, 6, \ldots, 200, 202$, and a segment of length 101. Then the total length is $2(1 + 2 + 3 + \cdots + 101) + 101 = 10403$.