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Now there be land, of length one thousand 步, and width five hundred 步.

Each 尺 hath a quail, and each 寸 hath a small bird.

We ask: how many be each of quail and small bird?

Both 鷓 and 鷦 can be quail.
《禮記·內則》雉兔鷓鷦
鷓, 音 晏.

鷓鷦答曰: 鷓五百今
問百有地
鷓步, 地
鷓尺長
各有千
幾鷓, 一
何寸步
有廣

Answer saith:

$$(1000 \text{ 步}) \times (500 \text{ 步}) \times \frac{1}{\text{尺}^2} \times \frac{36 \text{ 尺}^2}{\text{寸}^2} = 18 \text{ Mill.}$$

quails: eighteen million;

small birds: one hundred and eighty million. } →

NOTE. The small bird number is WRONG. Assuming the given ~~area~~ constants are area densities, the number of ~~birds~~ small birds should one hundred times (not ten times) the number of quails.

This is why dimensional analysis is important.

Method saith: put down the length, one thousand 步, 得 卽 之, 十 廣 術

Multiplying it by the width, five hundred 步, 鷓 得 得 萬 五 曰:

resulteth in five hundred thousand 步. Multiplying 其 數 鷓 一 步 百 置

by thirty-six, resulteth in ~~one~~ eighteen million 尺, 數 千 以 步 長

~~that~~ is, we obtain the number of quails. 上 八 三 乘 一

On top, decuple it, ~~that~~ is, we obtain the number of small birds. 十 百 十 之, 千

Yet 孫子 gets the area conversion

$$\text{步}^2 = (6 \text{ 尺})^2 = 36 \text{ 尺}^2 \text{ correct.}$$

卽 之, 十 廣 術
鷓 得 得 萬 五 曰:
鷓 一 步 百 置
數 千 以 步 長
上 八 三 乘 一
十 百 十 之, 千
之 萬 六 得 步
卽 尺 乘 五 以

B missing 步 in 五十萬步. Car. has 費 for last 鷓.

END 9/22