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> Now there be timber, and we know not its length. Drawing a cord and measuring it, there be four 尺 and five 寸 of excess cord; bending the cord and gauging it, one 尺 insufficient.
> We ask: how much be the length of the timber?

今有木，不知長短。引繩度之，餘繩四尺五寸；屈繩量之，不足一尺。問木長幾何？

B missing 木長 before 幾何

長短: length; lit. length or shortness; being long or short

度入聲，量平聲

屈: bending (Bending in half)

> Answer saith: six 尺 and five 寸.
> Method saith: put down the excess cord, four 尺 and five 寸. Adding the insufficiency, one 尺, altogether five 尺 and five 寸. Doubling it, resulteth in one 丈 and one 尺. Subtracting the excess, four 尺 and five 寸, we are done.

答曰：六尺五寸。術曰：置餘繩四尺五寸，加不足一尺，共五尺五寸，倍之，得一丈一尺，減餘四尺五寸，即得。

Let the rope and timber have lengths s and L

$$s = L + 4.5尺$$

$$\frac{s}{2} = L - 1尺$$

Quick: $L = 4.5尺 + 2(1尺)$

孫子 does more work than required, i.e.

$$L = 2(4.5尺 + 1尺) - 4.5尺.$$

END ¶18