

A52 B158(153) C52210(2.27) D64

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一	次	一	次	寸	次	寸	次	寸	初	答	幾	五	今
分	日	分	日	之	日	之	日	之	日	曰	何	日	有
寸	織	寸	織	一	織	七	織	一	織			織	女
之	二	之	一	十	六		三	十	一			通	子
二	尺	二	尺	四	寸		寸	九	寸			五	善
十	五	十	二		三		三		三			尺	織
五	寸	八	寸		十		十		十			問	日
	三		三		一		一		一			日	自
	十		十		分		分		分			織	倍

C em. has 扣 before 問. A em. missing 寸 in 三十一分寸之二十八.

Now we have a lady, good at weaving, doubling her own output each day, and ~~weaving~~ in five days weaveth she through five R. We ask: how much weaveth she each day?

Answer saith: the first day she weaveth one 寸 and nineteen thirty-firsts of a 寸;

the next day she weaveth three 寸 and seven thirty-firsts of a 寸;

the next day she weaveth six 寸 and fourteen thirty-firsts of a 寸;

the next day she weaveth one R two 寸 and twenty-eight thirty-firsts of a 寸;

and the next day she weaveth two R five 寸 and twenty-five thirty-firsts of a 寸.

$$L + 2L + 4L + 8L + 16L = 50\text{寸}$$

$$L = 50\text{寸}/31$$

$$(L, 2L, 4L, 8L, 16L) = (1\frac{19}{31}, 3\frac{7}{31}, 6\frac{14}{31}, 12\frac{28}{31}, 25\frac{25}{31})\text{寸}.$$

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~~Method~~

A or missing 實.

A & D missing one 實 each.

Method saith: put down in a row each of the waning, which, combined subsidially, resulteth in thirtyone as the divisor.

Multiplying those not yet combined, by five A, each be a dividend itself.

Taking the dividends, as if the divisor were one, we are done.

衰: waning

See 衰分, 'waning division' in 《九章》.

Basically it ~~consists~~ of proportional division, where the weights are listed in decreasing order.

In our problem though, the weights 1, 2, 4, 8, 16 are increasing.

實如法而一

A very ~~way~~ fancy way of saying divide the dividend (實) by the divisor (法).

而人以術

一, 五 曰:

即尺各置

得。乘列

未并衰,

者, 副

各并,

自得

三

十一

實。

實一

如為

法法。