電磁調理器の物理学 - 解答用紙

C.1. 誘導コイルの特性評価 (4.5 pts)

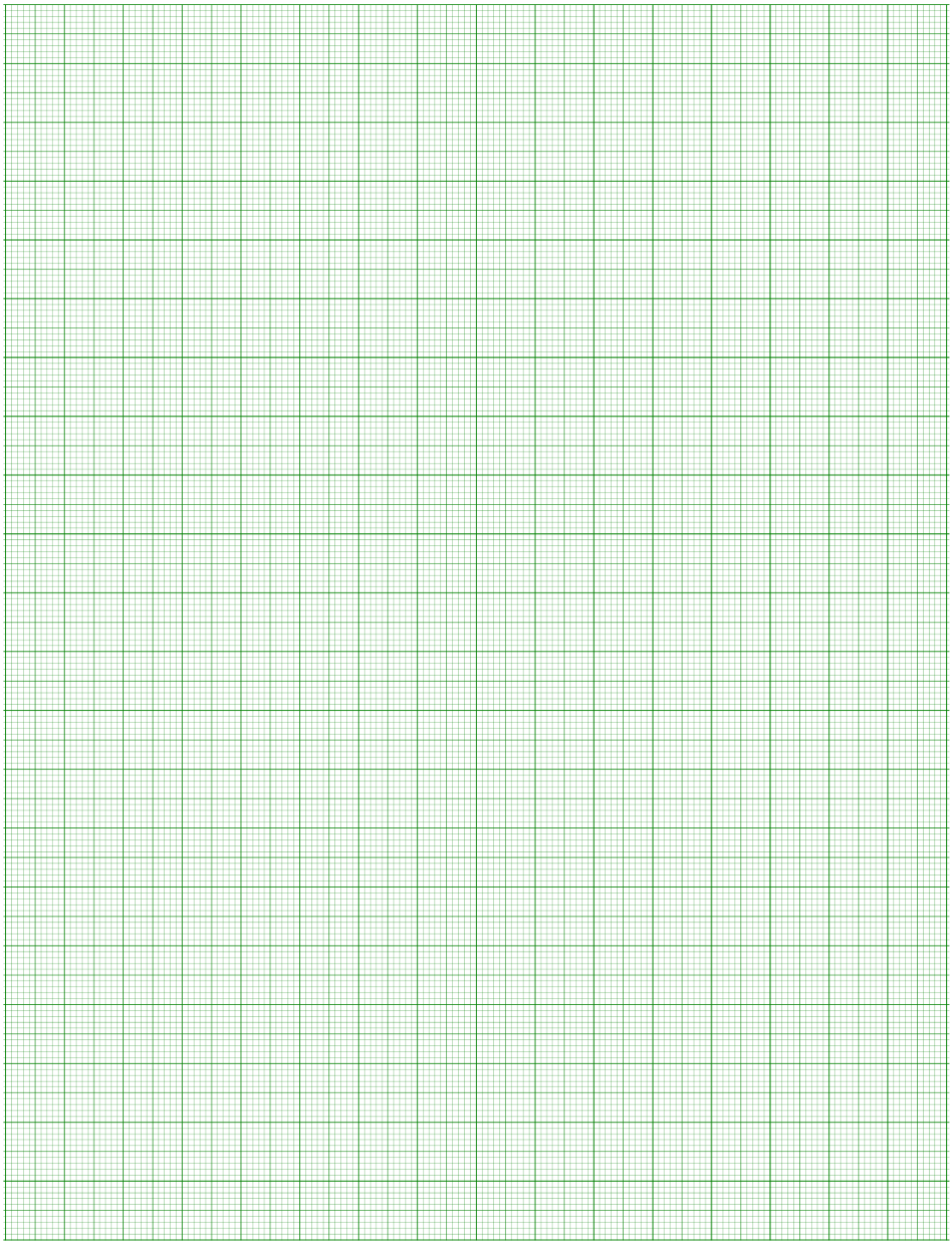
1.1 (0.4 pt)

$R_c =$

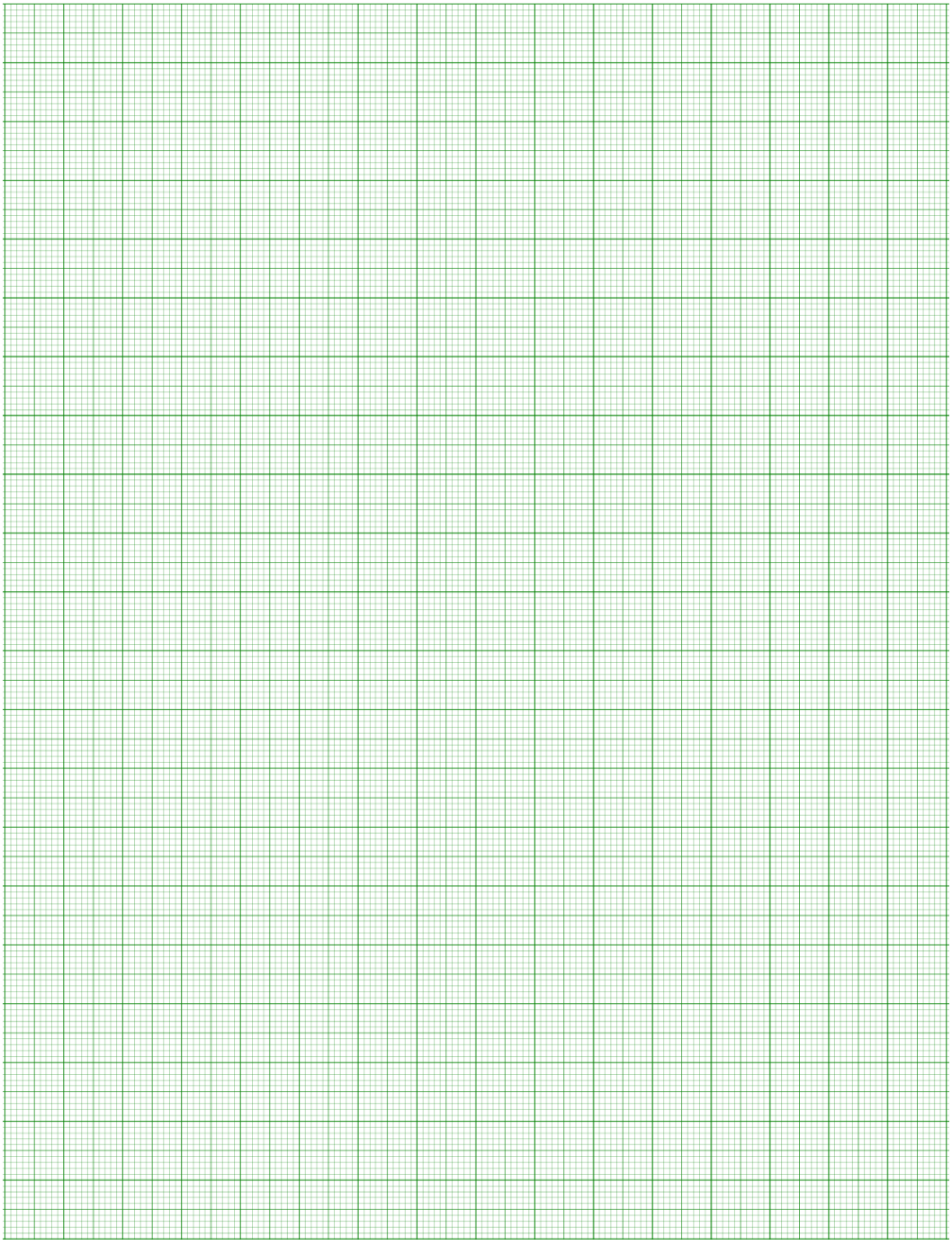
1.2 (1.2 pt)

1.2 (cont.)

1.2 (cont.)



1.2 (cont.)



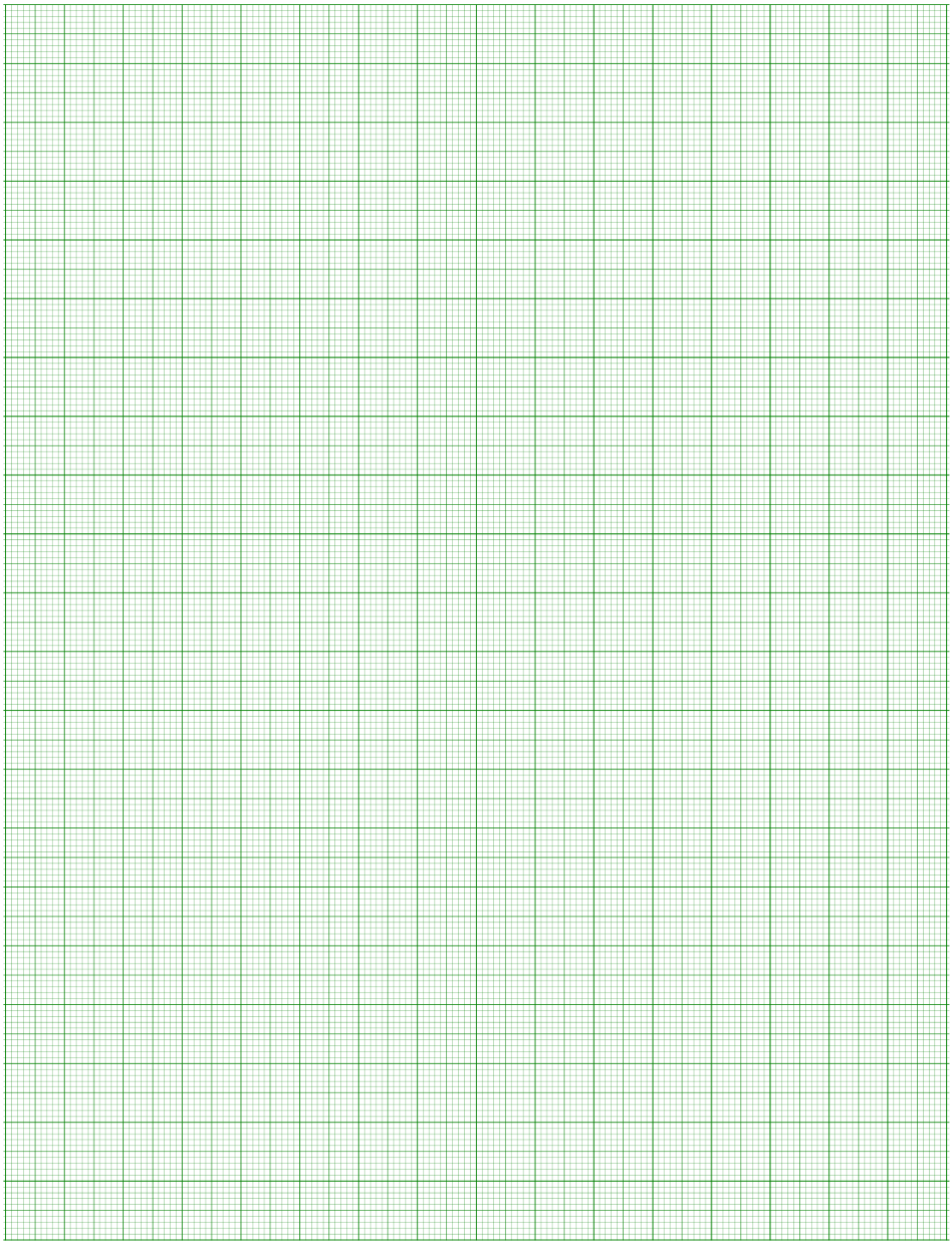
$(C = 470\,\mathrm{nF})$, $L =$

$(C = 2200\,\mu\mathrm{F})$, $L =$

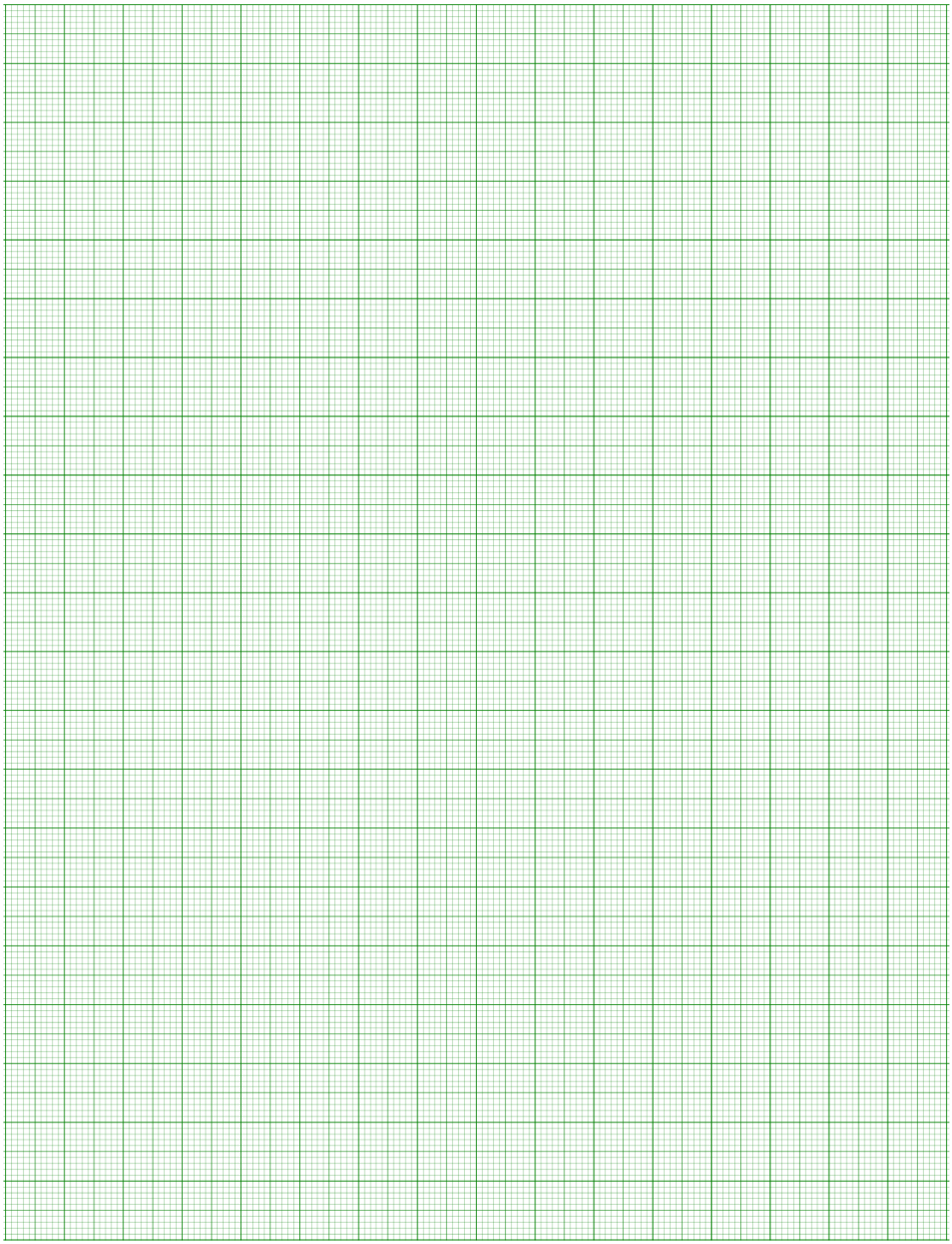
1.3 (0.5 pt)

1.4 (1.4 pt)

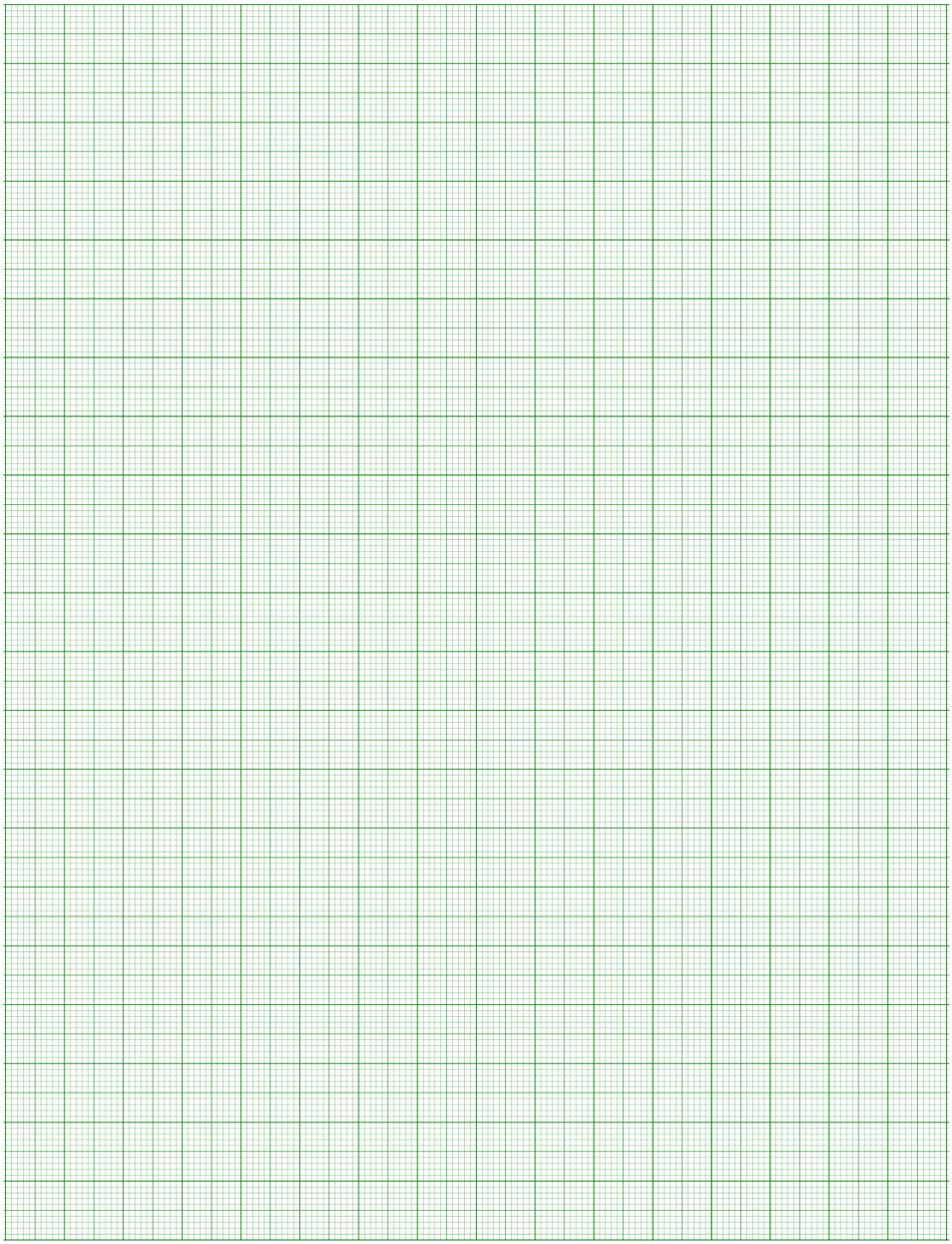
1.4 (cont.)



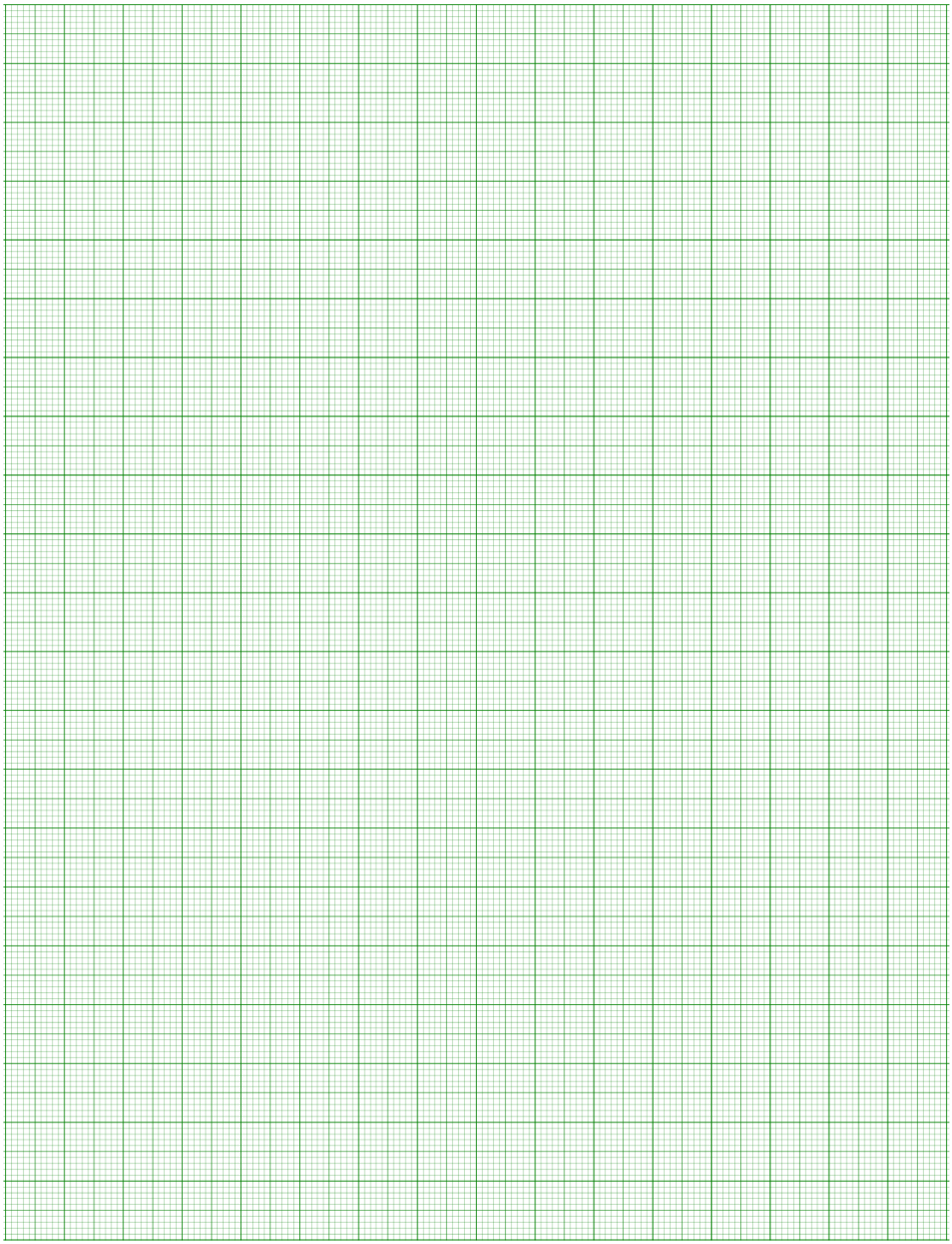
1.4 (cont.)



1.4 (cont.)



1.4 (cont.)



1.5 (1 pt)

L(average) $=$

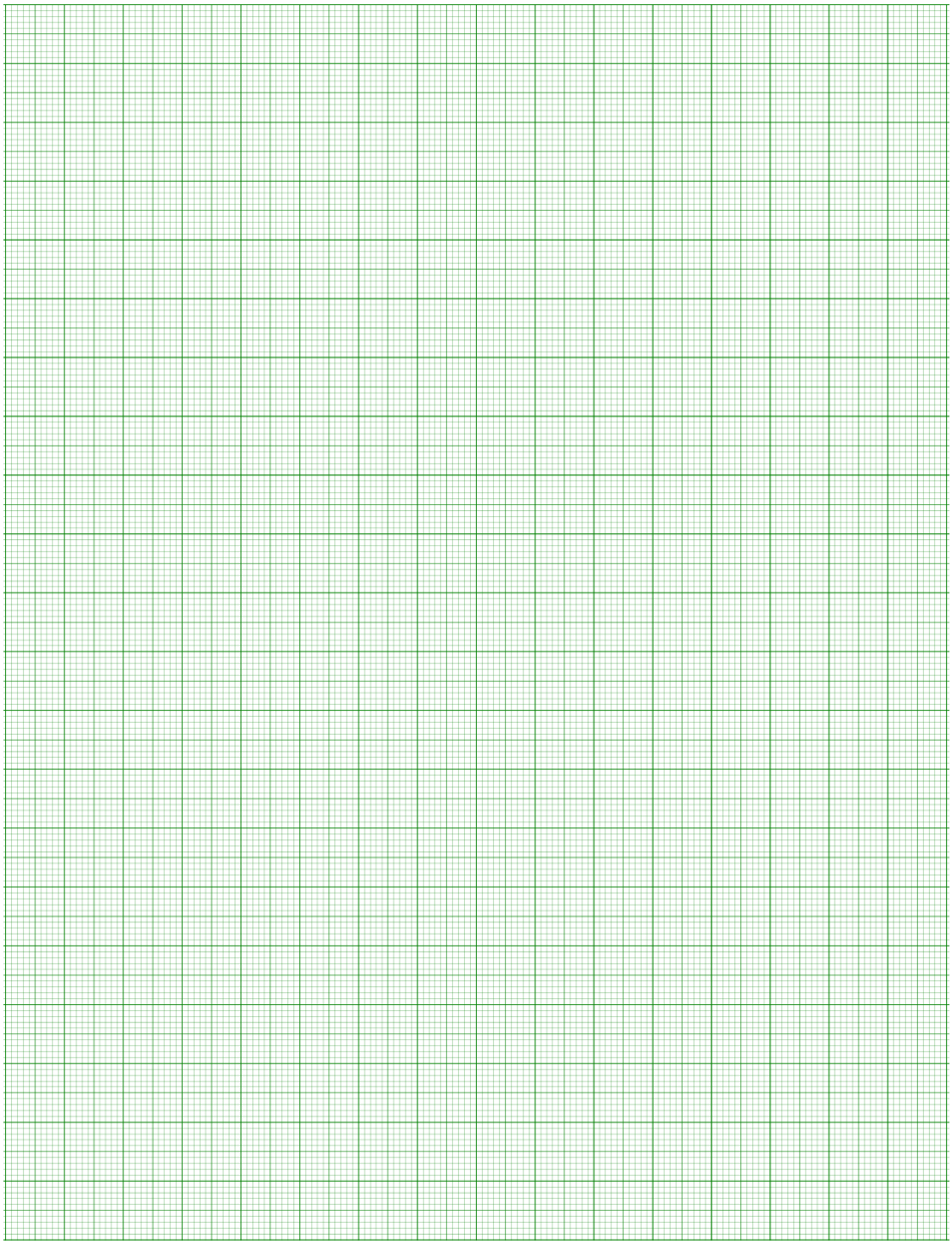
R_L(average) $=$

C.2. 相互誘導と表皮深さ (8.1 pts)

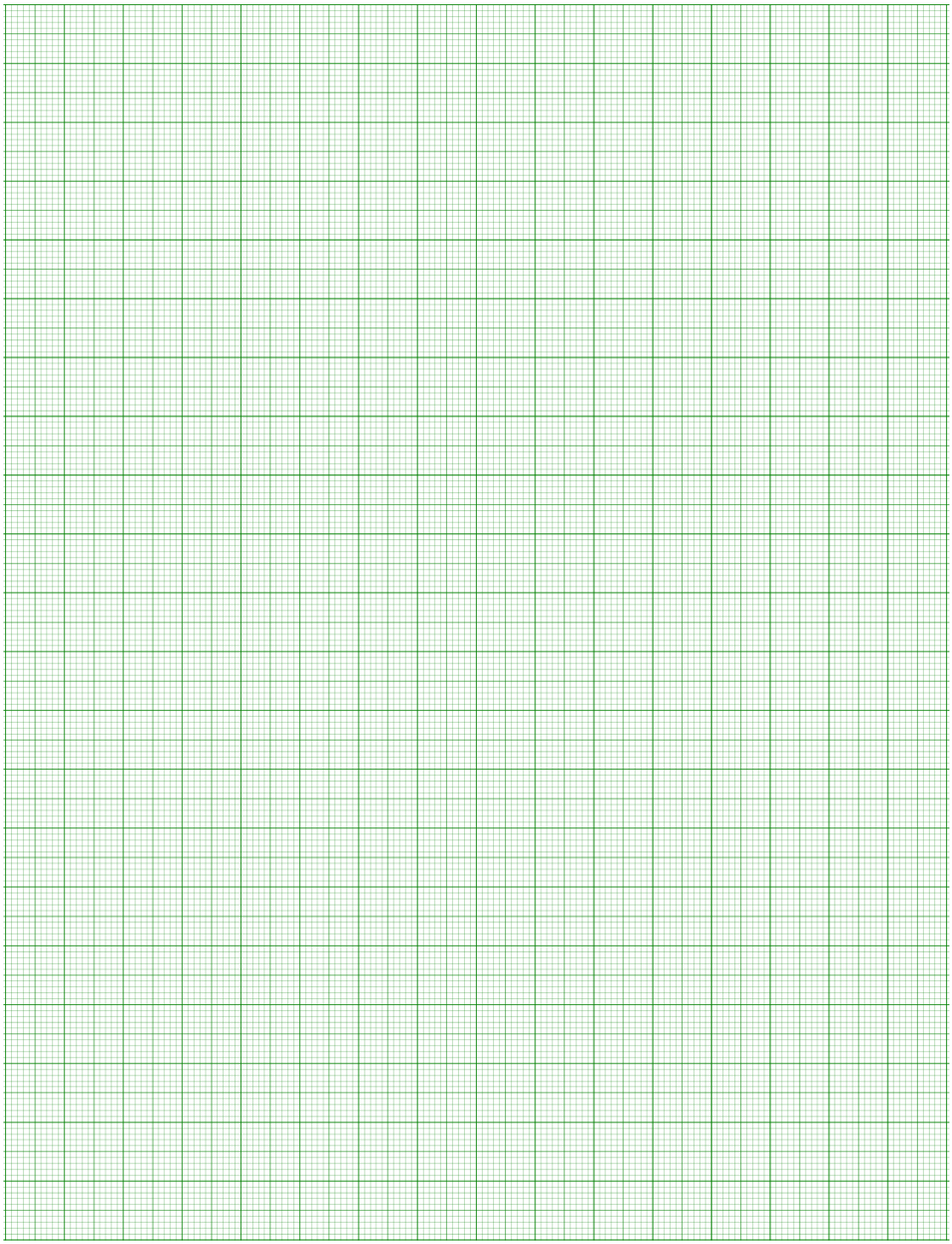
2.1 (0.4 pt)

2.2 (1 pt)

2.2 (cont.)



2.2 (cont.)



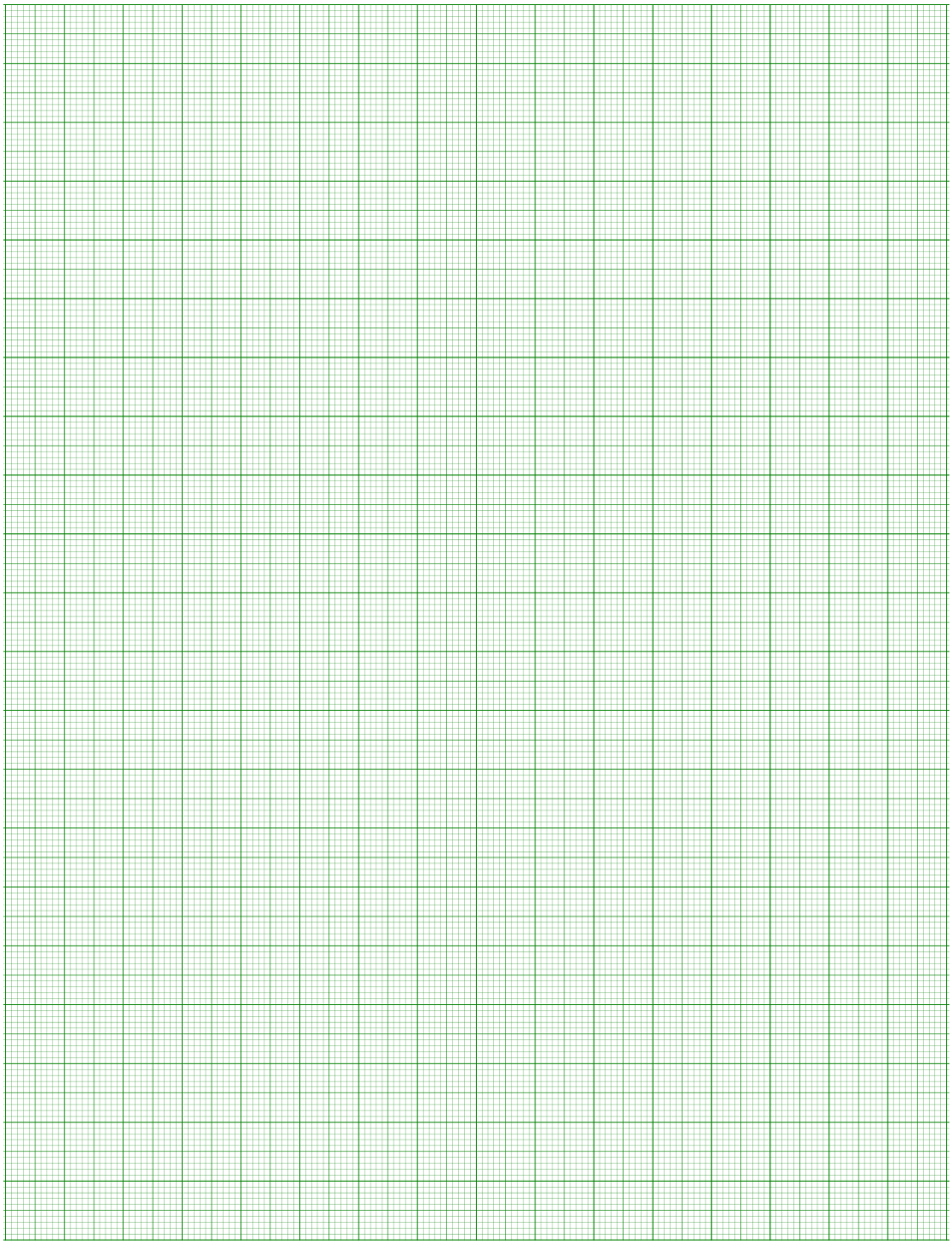
2.3 (0.4 pt)

$M =$ $M =$

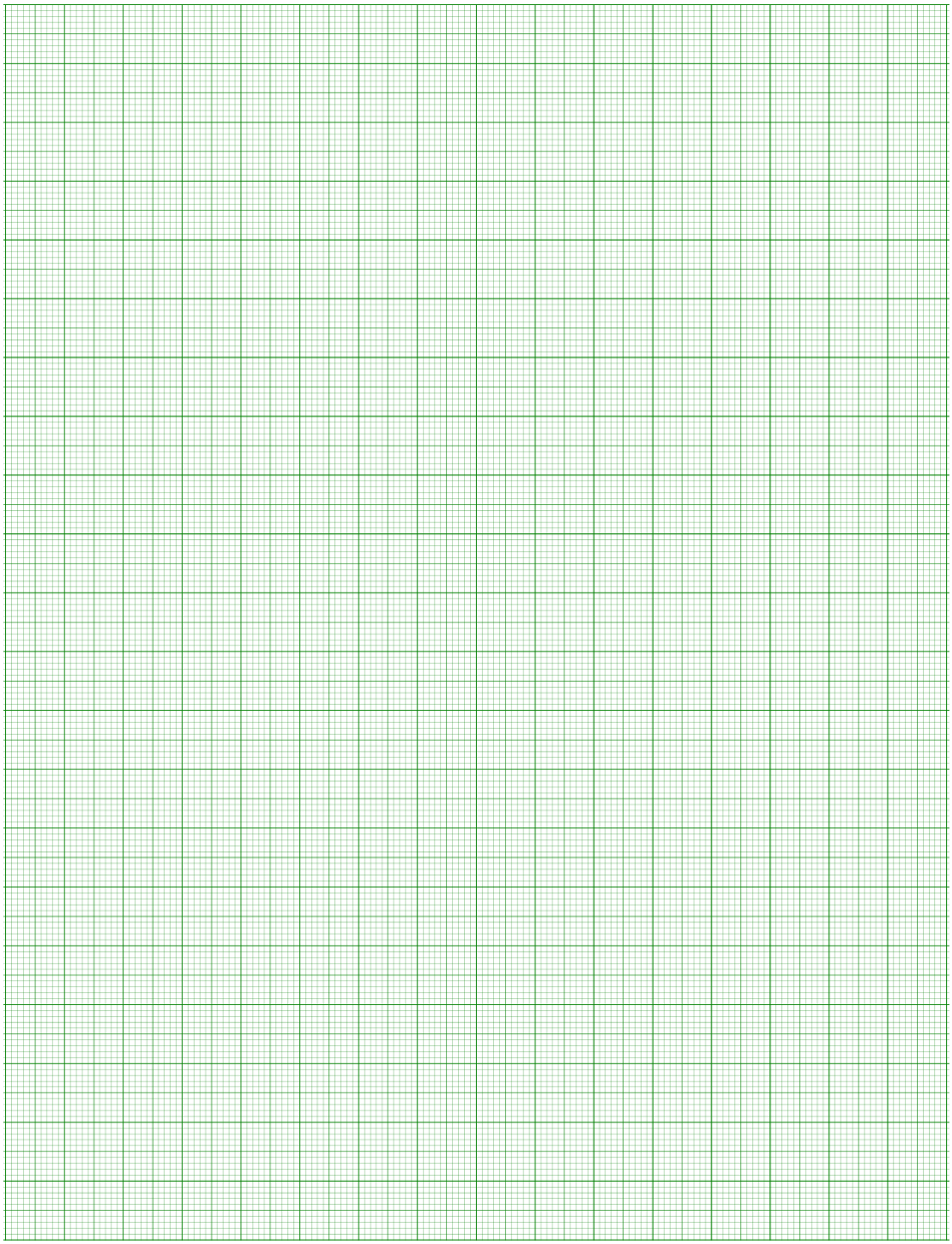
2.4 (5.5 pt)

2.4 (cont.)

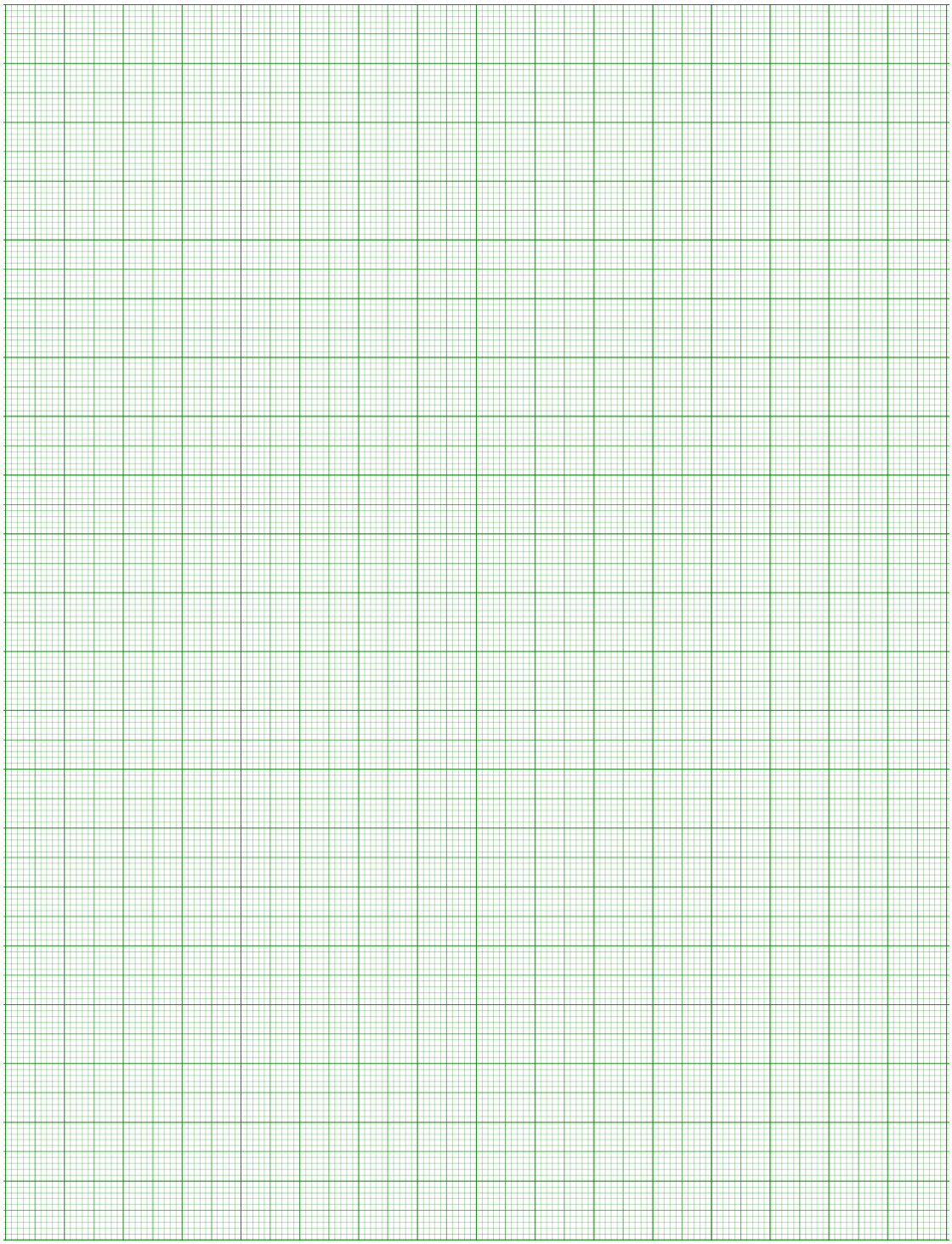
2.4 (cont.)



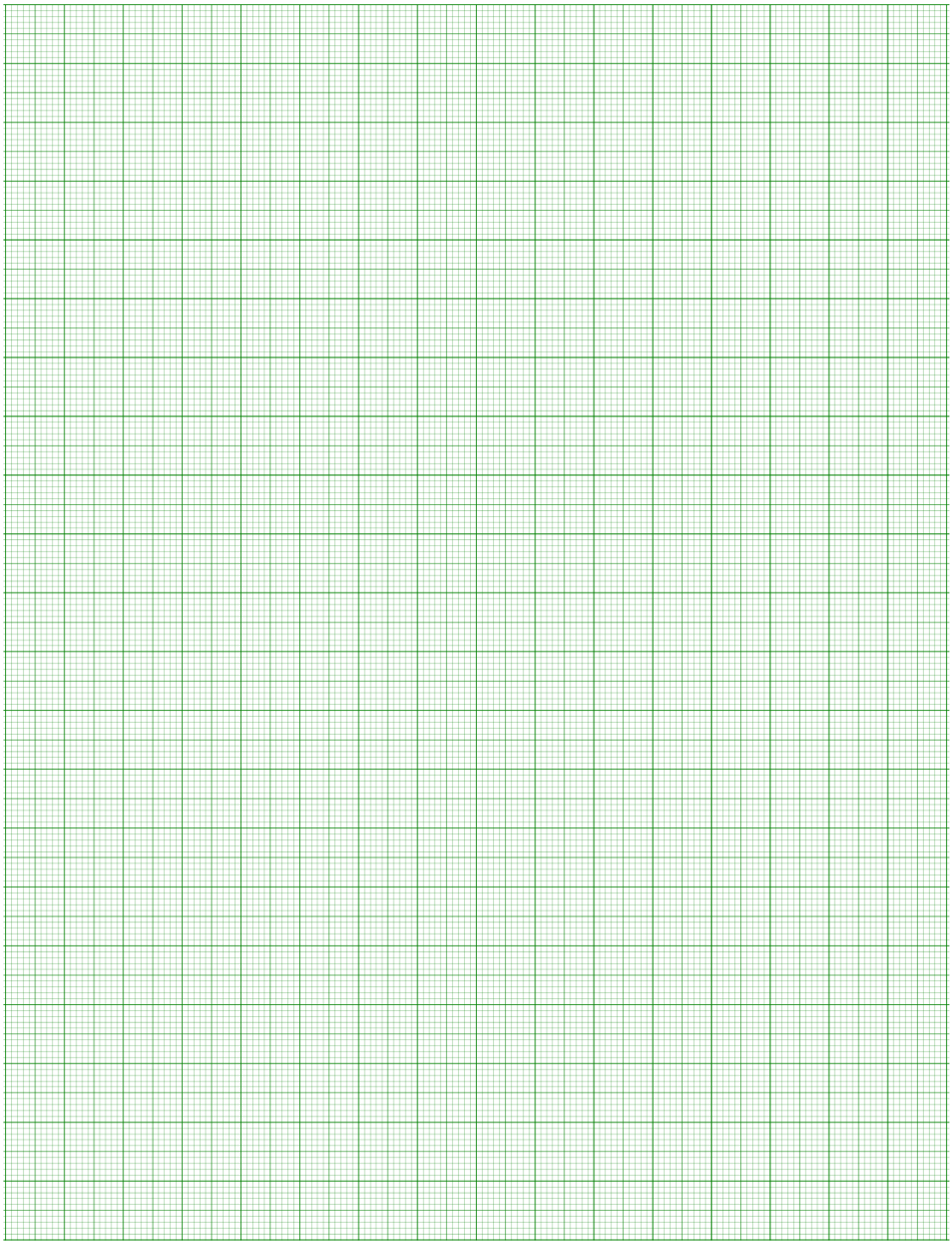
2.4 (cont.)



2.4 (cont.)



2.4 (cont.)



2.4 (cont.)

良いデータが得られない金属を 1 つ選んでチェックマークを付けよ:
☐ SS410 ☐ SS304 ☐ Cu ☐ Al

n = n = n =

2.5 (0.2 pt)

m =

2.6 (0.6 pt)

σ = σ = σ =

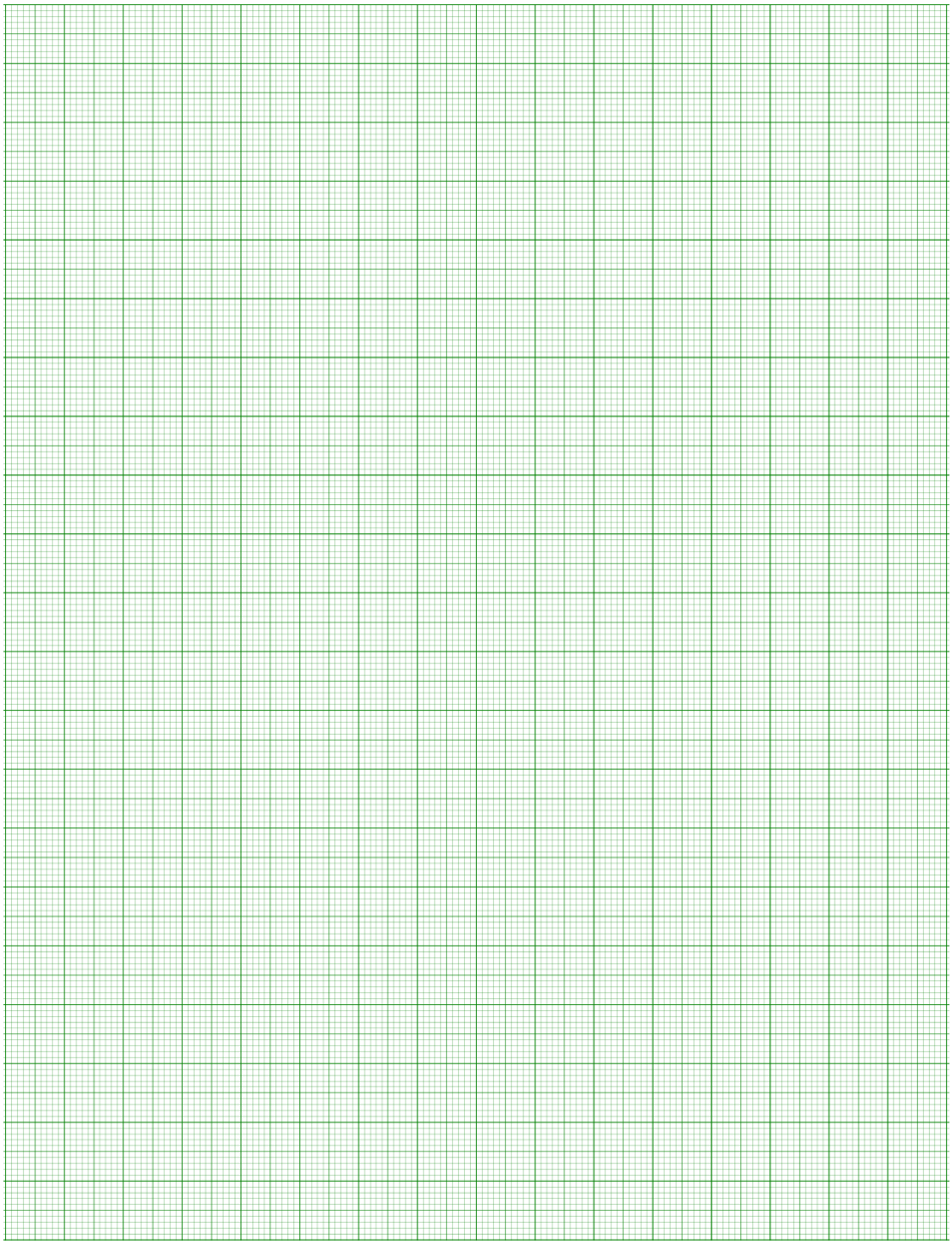
C.3. : 比熱（比熱容量）と実効負荷抵抗 (7.4 pts)

3.1 (0.2 pt)

3.2 (0.5 pt)

3.3 (1.5 pt)

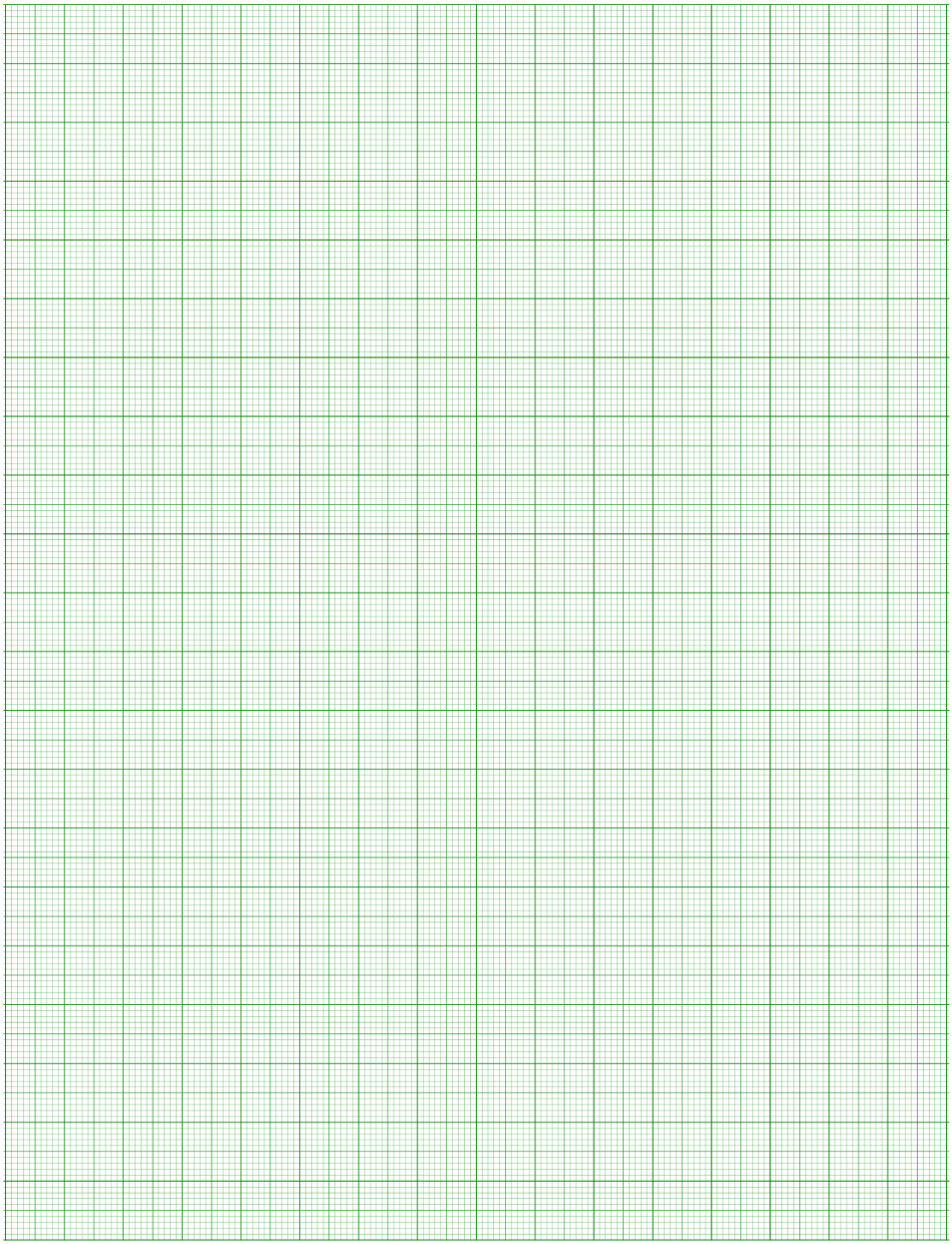
3.3 (cont.)



$c_{Al} =$

3.4 (1.5 pt)

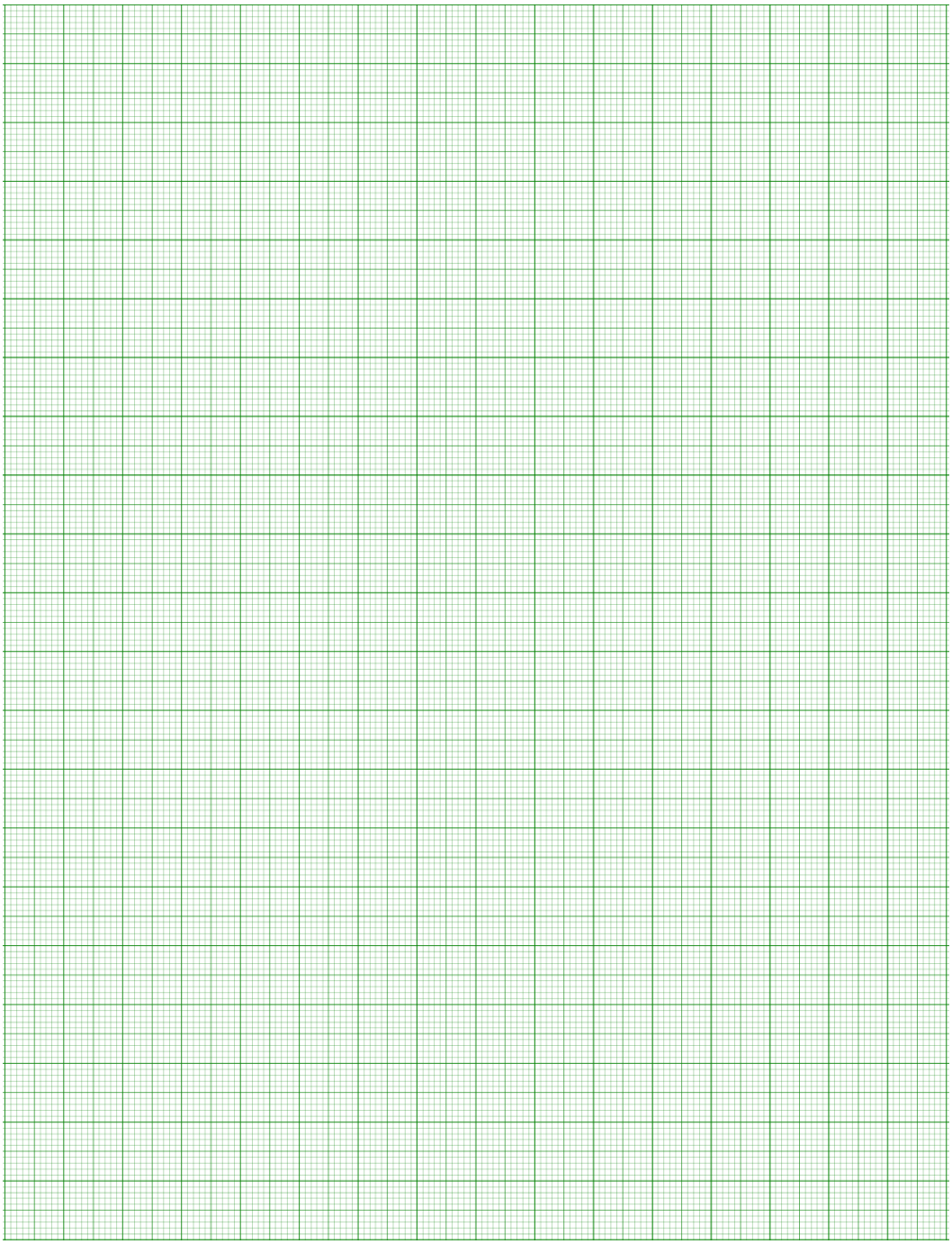
3.4 (cont.)



$c_{SS410} =$

3.5 (1.6 pt)

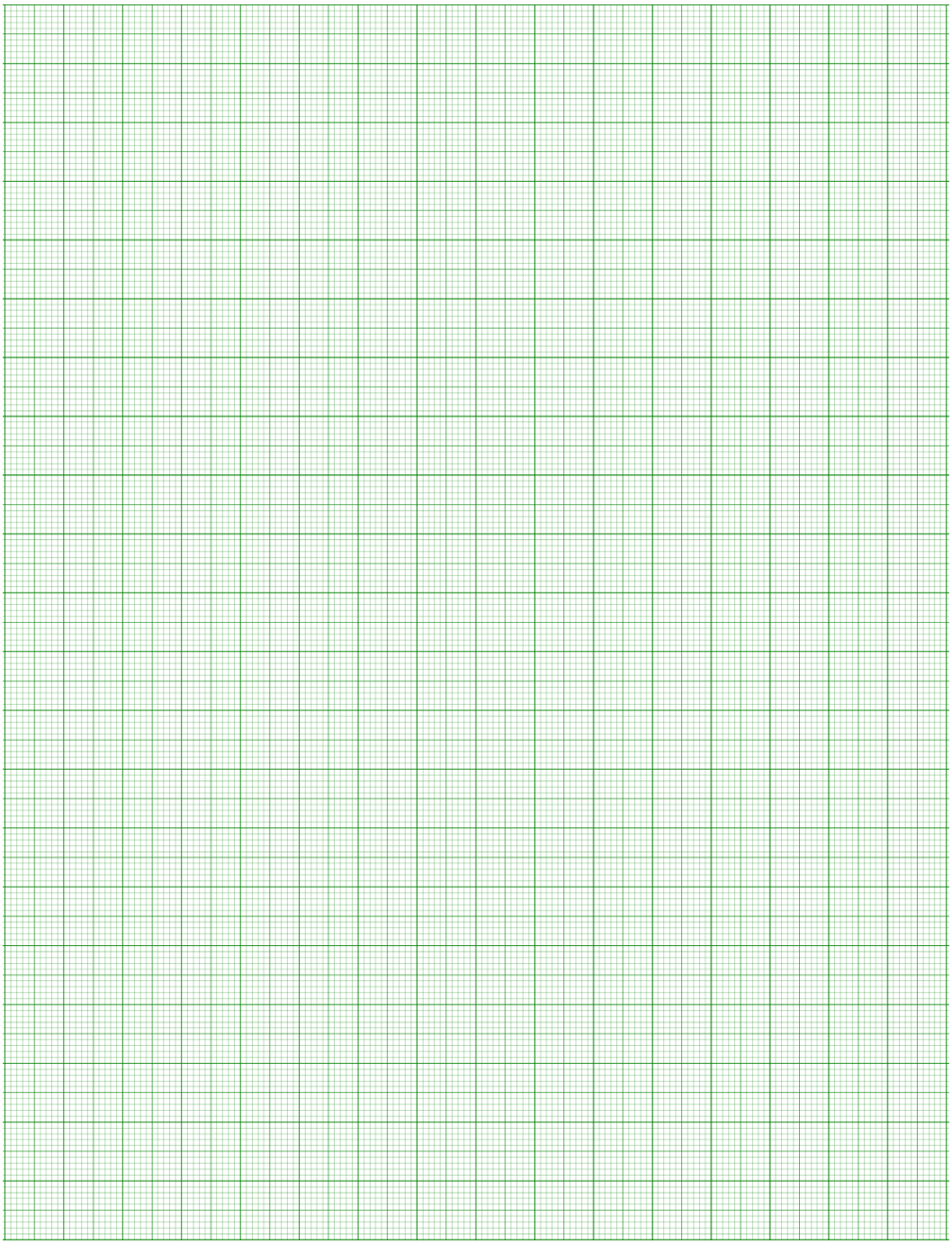
3.5 (cont.)



$R_{LOAD} =$

3.6 (1.5 pt)

3.6 (cont.)



$R_{LOAD} =$

3.7 (0.1 pt)
☐ (a) ☐ (b)

3.8 (0.1 pt)
☐ (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e)

3.9 (0.4 pt)

$\eta_{\mathrm{Al}} =$ $\eta_{\mathrm{SS410}} =$