

301 Phys.

Section	Exercises
13.1	4,8,11,14,16,17,19
13.2	2,5,15,16,17,21,24,32
13.3	11,12,19,21,22
13.4	2,11,14,19,21,22
13.5	3,5,6,11,13,15,16
13.6	6,9,10,13,17,18,19
13.7	5,15,16,25,26
14.1	1,11,21,23,25
14.2	9,11,17,21
14.3	1,5,7,13
14.4	1,3,5,7,11,13
15.2	7,9,11,15
15.4	3,5,19,23
16.1	1,3,5,11,19,23,25
16.2	1,3,13,17,19
16.3	3,4,11,17,23,24,25
16.4	1,3,5,11,15,17,19,21,25

Last lecture exercise:

Prove that:
$$\int_0^{\infty} \frac{(\ln x)^2}{x^2+1} dx = \frac{\pi^3}{8}$$