Brief solutions to selected problems in homework week 15

1. Section 9.2, problems 4:

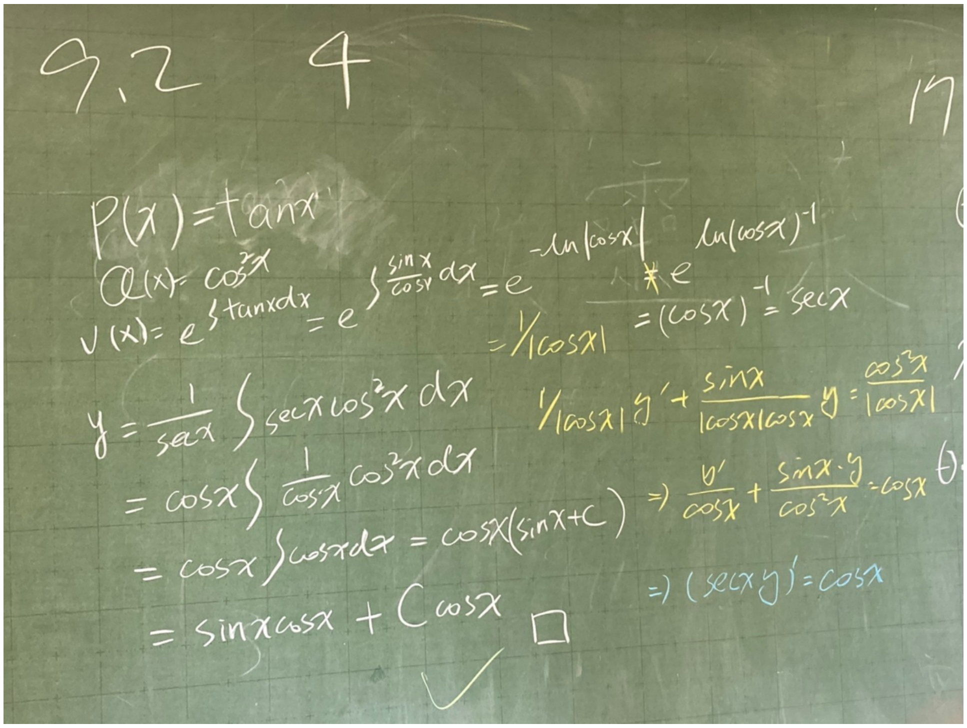

Figure 1: Section 9.2, problems 4.

Remark: One may assume that $\ln|\cos x| = \ln \cos x$. This amounts to finding the multiplication factor on the region $\cos x > 0$. Since $|\cos x| = \pm \cos x$, the effect of multiplying every term by $\frac{1}{\cos x}$ is the same as multiplying every term by $\frac{-1}{\cos x}$ and makes no difference in subsequent computations.

2. Section 7.3, problems 11, 37:

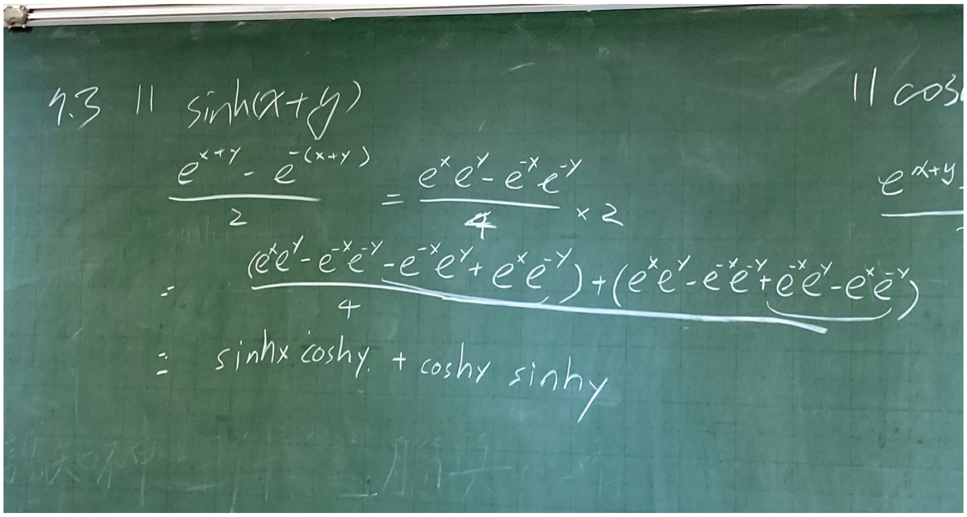

Figure 2: Section 7.3, problems 11, part 1.

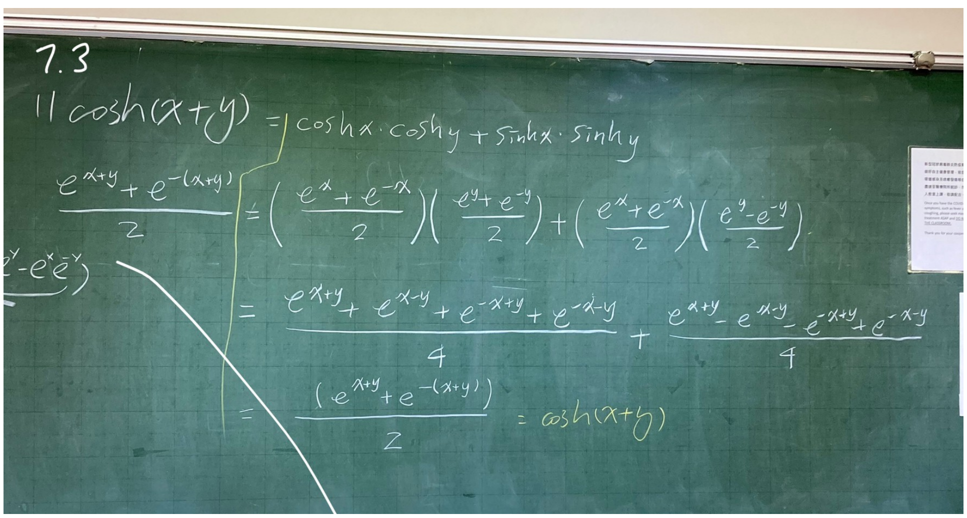

Figure 3: Section 7.3, problems 11, part 2.

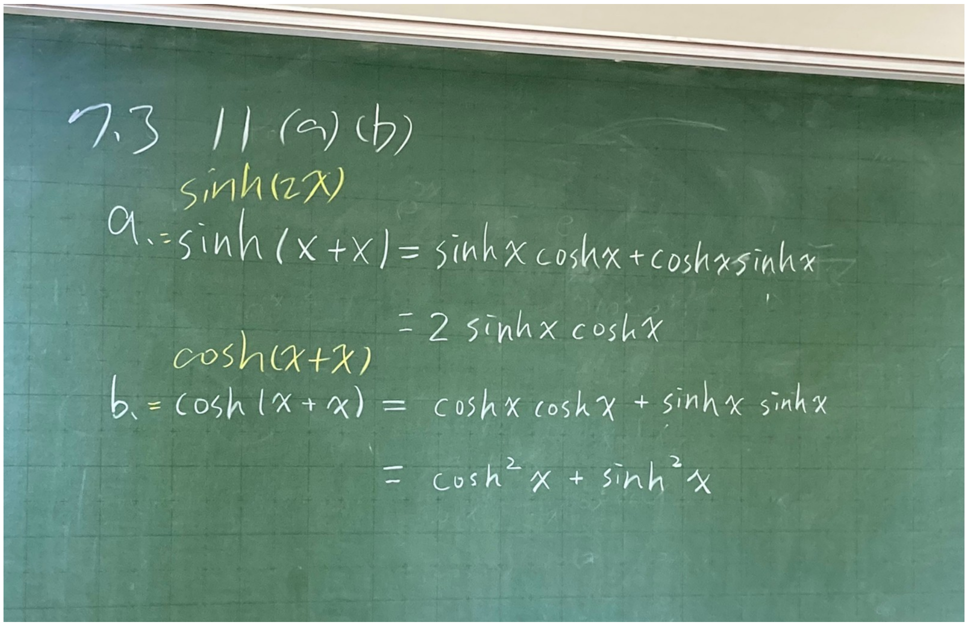

Figure 4: Section 7.3, problems 11, part 3.

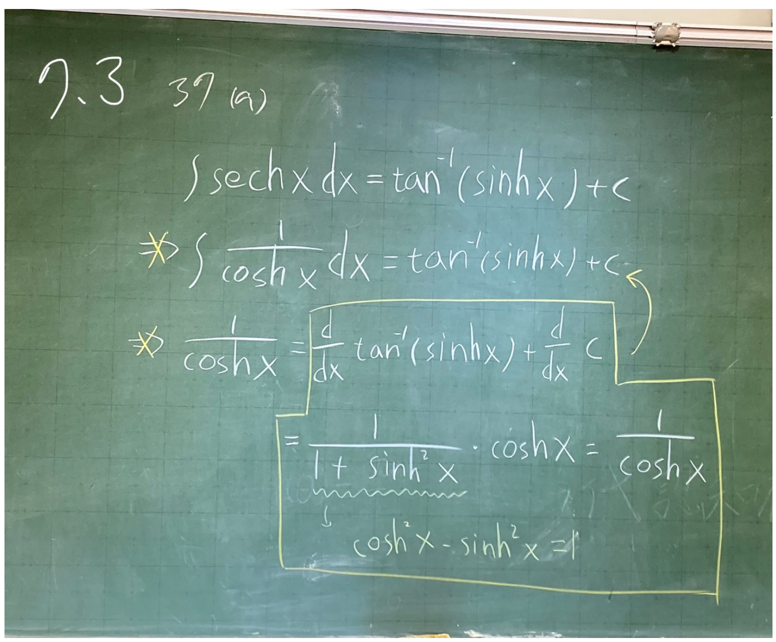

Figure 5: Section 7.3, problems 37(a).

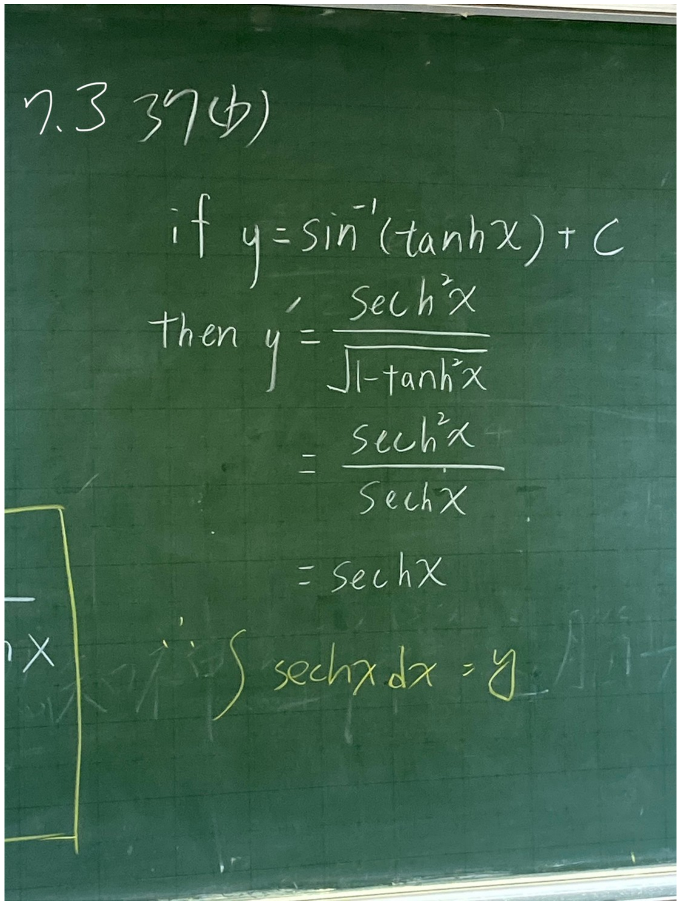

Figure 6: Section 7.3, problems 37(b).

3. Section 7.4, problems 10, 24:

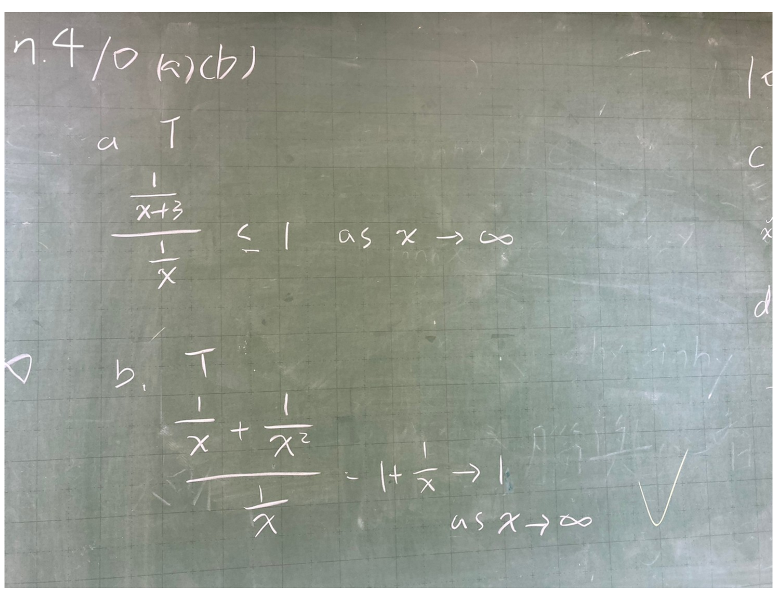

Figure 7: Section 7.4, problems 10 (a,b).

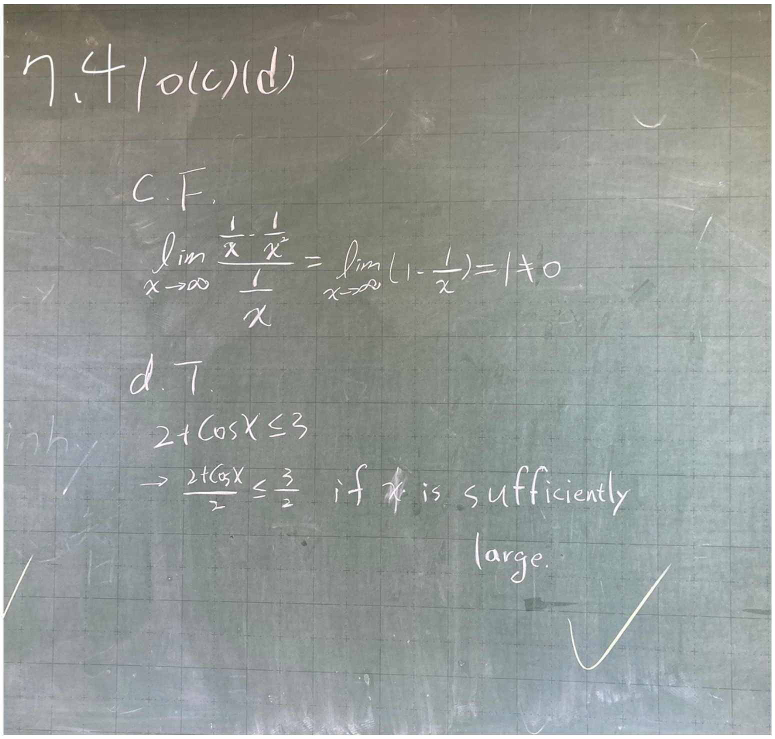

Figure 8: Section 7.4, problems 10 (c,d).

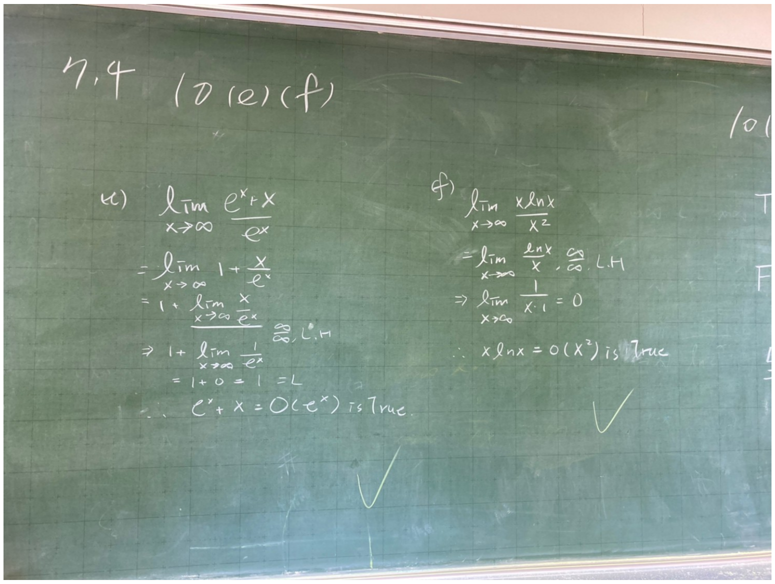

Figure 9: Section 7.4, problems 10 (e,f).

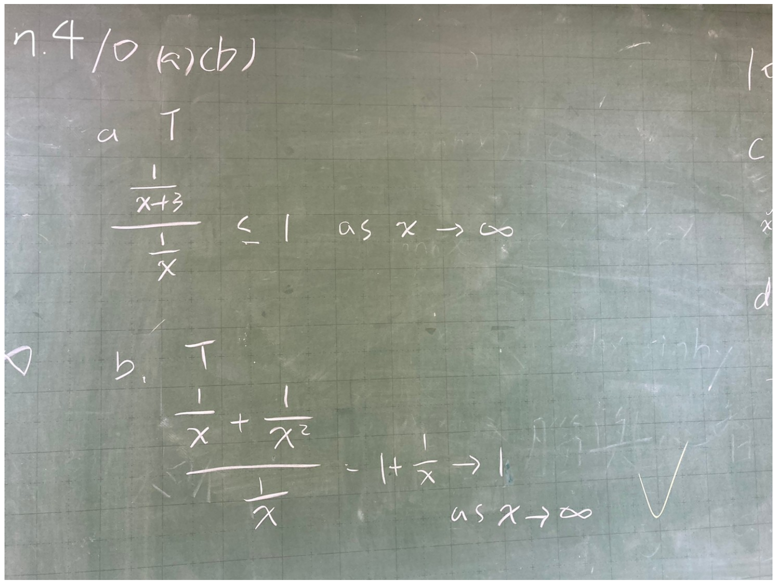

Figure 10: Section 7.4, problems 10 (g,h).

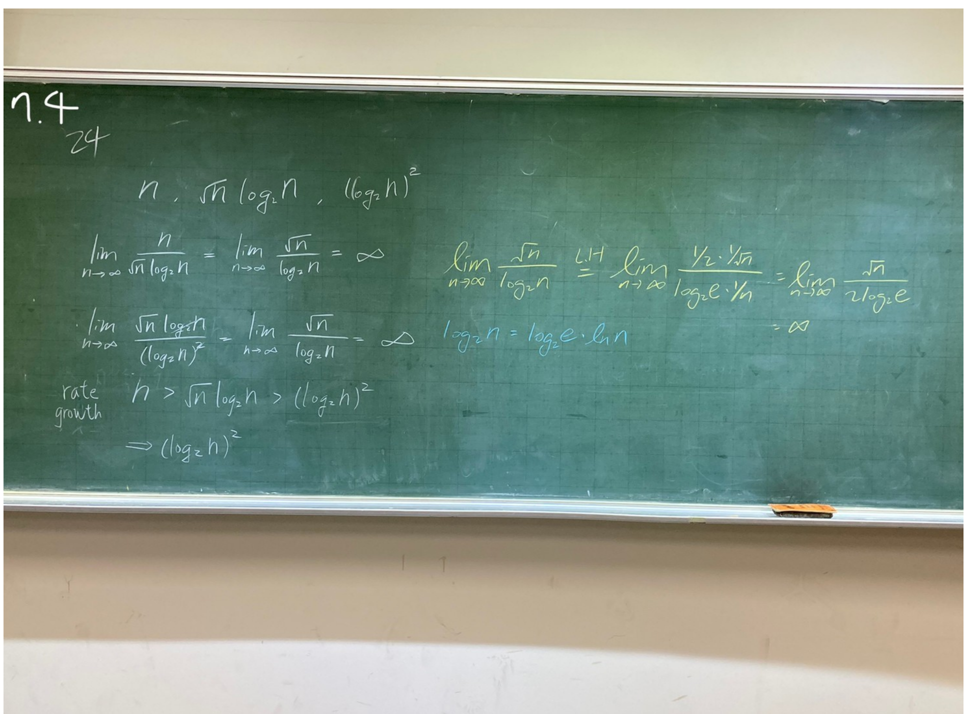

Figure 11: Section 7.4, problems 24.