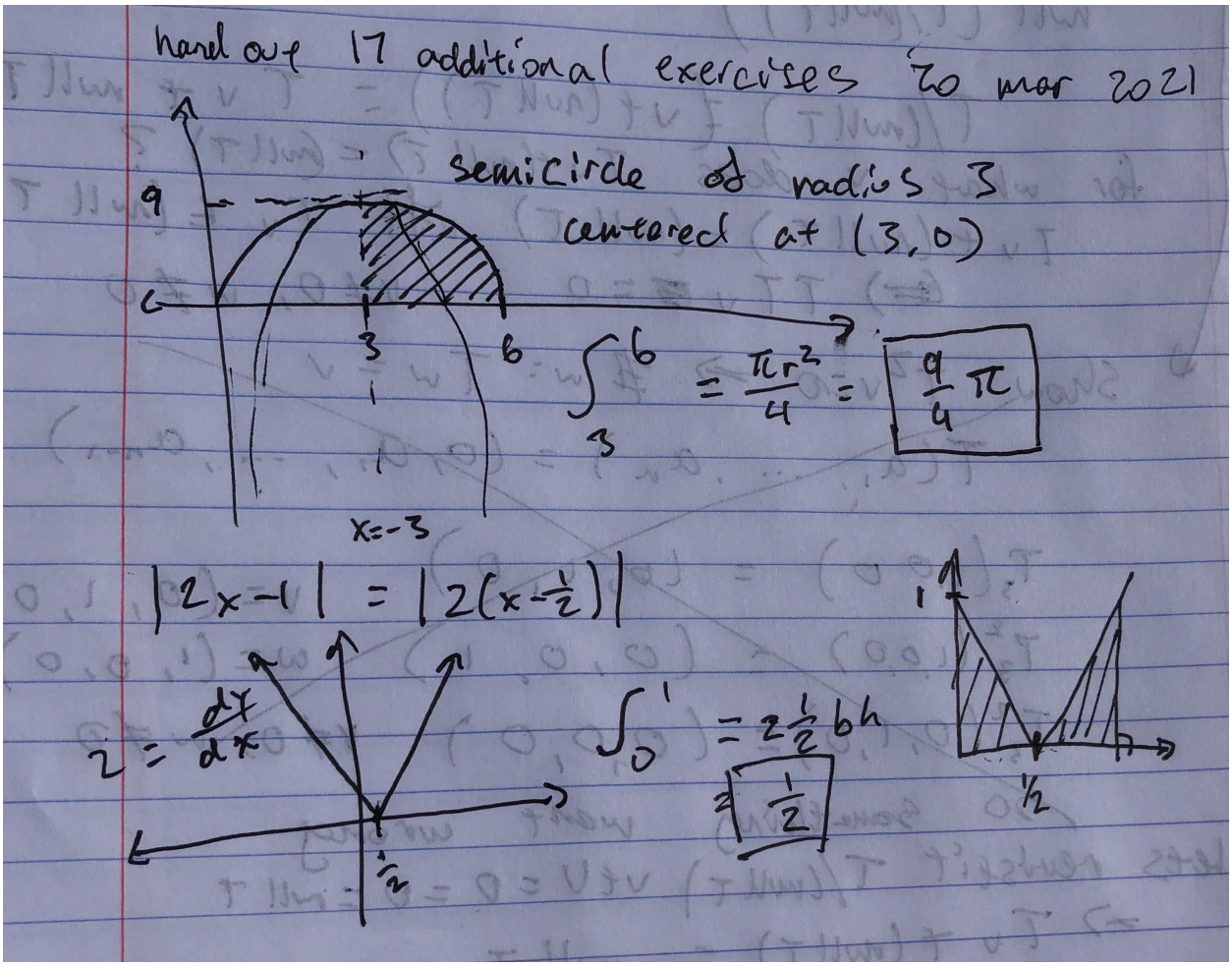
1 | Exercises

1.1 | interpreting in terms of area



1.3 | subtracting integrals

I expect

$$\int_1^2 f(x)dx = \int_1^5 f(x)dx - \int_2^5 f(x)dx = -3 - 4 = -7$$

In fact, I expect

$$\int_a^b f(x)dx + \int_b^c f(x)dx = \int_a^c f(x)dx$$

1.4 | show $\int_a^b x^2 dx = \frac{b^3-a^3}{3}$

(see attached pages)

$$\int_a^b x^2 dx = \lim_{n\to\infty} \sum_{k=0}^{n}$$