

## Answers for Shankar, Chapter 2

### Exercise 2.7.2(ii).

Explicit computation gives  $\{p_\phi, \mathcal{H}\} = 2(a - b)xy$ .

### Exercise 2.7.5.

straightforward algebra

### Problem 2.7.8.

reduced to straightforward algebra by steps (1), (2), (3), (4)

### Exercise 2.8.2.

straightforward algebra

### Problem 2.8.4.

The generator is  $g = -\frac{1}{2}p^2 - \frac{1}{2}x^2 = -H$ .