HOMEWORK 4

DUE 5 MAY 2017

1. Find the following ideals in $\mathbb{Z}$. The notation is from Atiyah-MacDonald, Chapter 1.

   (a) $(2\mathbb{Z} : 3\mathbb{Z})$
   (b) $(2\mathbb{Z} : 6\mathbb{Z})$
   (c) $(6\mathbb{Z} : 2\mathbb{Z})$
   (d) $r(12\mathbb{Z})$

2. Atiyah-MacDonald, Chapter 1, Exercise 10.

3. Atiyah-MacDonald, Chapter 2, Exercise 3.

4. Atiyah-MacDonald, Chapter 2, Exercise 8.

5. Atiyah-MacDonald, Chapter 2, Exercise 11.

6. Atiyah-MacDonald, Chapter 3, Exercise 2.

7. Atiyah-MacDonald, Chapter 3, Exercise 5.

8. Atiyah-MacDonald, Chapter 3, Exercise 12.