

# Problem Questions 1.6

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Here we will have the written answers to selected problems that do not require code or drawings to solve.

## 1 Fields

### 1.1

### 1.2

### 1.3

### 1.4

### 1.5

### 1.6

### 1.7 Review

1. The complex numbers, the reals, and the integers.
2.  $z.\text{real} - z.\text{imag}$ , and the formula for the absolute value of a complex number is  $z * z_c$
3. Adding the real and imaginary components separately.
4. Putting them in an equation and using distributive property.
5. Adding two complex numbers together.
6. Multiplying a real number by a complex number.
7. Multiplying by -1.
8. Multiplying by  $e^{\frac{\pi i}{2}}$ .
9. Adding the two bits and then applying modulo 2.
10. Setting the result to 0 if one of the bits is 0 and 1 otherwise.