

**Problem 1.1 :****Given:****Find:**

a.

b.

**Answer Section**

**Problem 1.2 :****Given:****Find:**

a.

c.

**Answer Section**

**Problem 1.3 :****Given:****Find:**

b.

c.

**Answer Section**

**Problem 1.4 :****Given:****Find:**

a.

Answer Section

**Problem 1.6 :****Given:****Find:**

b.

**Answer Section**

**Problem 1.7 :****Given:****Find:**

Answer Section

**Problem 1.11 :****Given:****Find:**

Answer Section

**Problem H :****Given:** Euler's formula**Find:** Show how to derive

$$\cos x = \frac{e^{jx} + e^{-jx}}{2}$$

and

$$\sin x = \frac{e^{jx} - e^{-jx}}{2j}$$

Answer Section

**Problem I :**

**Given:** The discussion in Lecture and the lecture notes.

**Find:** List at least ten examples of signals encountered in real life.

Answer Section