1. How many octaves are present between 100 and 6400 Hz (including both 100 and 6400 Hz)?
   a. Four
   b. Five
   c. **Six (100-200, 200-400, 400-800, 800-1600, 1600-3200, 3200-6400)**
   d. Seven

2. A certain complex sound has a continuous amplitude spectrum containing all frequencies between 100 and 4000 Hz, and has no fundamental frequency or harmonics. What kind of sound is this?
   a. Sine wave
   b. Square wave
   c. Sawtooth wave
   d. **Noise**

3. A certain complex sound contains the following components: 250 Hz, 750 Hz, 1250 Hz, and 1750 Hz. The amplitude spectrum has a slope of -12 dB/octave. What is the fundamental frequency of this sound?
   a. 50 Hz
   b. 150 Hz
   c. **250 Hz**
   d. 1750 Hz

4. What kind of sound is described in question 3?
   a. Sine wave
   b. **Triangular wave (Only odd harmonics, slope of -12 dB/octave)**
   c. Sawtooth wave
   d. Square wave

5. A sound is composed of the sum of the following frequencies: 600 Hz, 1000 Hz, and 1400 Hz. What is the fundamental frequency of this sound?
   a. 100 Hz
   b. **200 Hz (Highest number that divides all the frequencies in the wave)**
   c. 300 Hz
   d. 600 Hz *(Not correct because it doesn’t divide all the other frequencies)*

6. What kind of wave is described in question 5?
   a. **Square or triangular wave (Only odd harmonics)**
   b. Sine wave
   c. Sawtooth or square wave
   d. Sawtooth or Triangular wave

7. The phase spectrum below is that of a
   a. Sine wave
   b. Square wave
   c. **Sawtooth wave (Contains both odd and even harmonics)**
   d. White noise

![Phase Spectrum](image)