Answer key for Activity 2

1. 4.6×10^2 m (460 m)
2. 2.3×10^2 m (230 m)
3. 3.3 m
4. 2.96 m

5a. 1.76×10^2 m (176 m)

5b. 5.56×10^2 m (556 m)

6a. 3.4 m

6b. 2.8 m

ACTIVITY 3
Jupiter...

- The distance from the Sun to Jupiter is 778,330,000 km.
- The distance from the Sun to Earth is 149,600,000 km.
- In the following problem, assume that the planets are on the same side of the Sun (as close to one another as possible).

1. How long does it take for radio signals to travel from Jupiter to Earth?

   The frequency range of Jupiter radio emissions that can be detected on Earth is 8 MHz to 40 MHz.
2. Find the shortest wavelength Jupiter radio wave that can be detected on Earth.
3. Find the longest wavelength Jupiter radio wave that can be detected on Earth.
4. Find the wavelength of the Jupiter radio wave that has a frequency of 20.1 MHz.

Answer key for Activity 3

1. 2.1×10^3 s (34.9 minutes)
2. 7.5 m
3. 37.5 m
4. 14.9 m