Solve the following tri-diagonal system:

$$\frac{21}{20}x_1 - x_2 = 0.9$$

$$-x_1 + 4x_2 - x_3 = 2.0$$

$$-x_2 + 4x_3 - x_4 = 2.0$$

$$-x_3 + 4x_4 - x_5 = 2.0$$

$$-x_4 + 4x_5 - x_6 = 2.0$$

$$-x_5 + 2x_6 = 1.0$$