

1. Solve the following equations on a separate sheet of paper. Check your answers.

a) $\sqrt{5x + 6} = 7$

b) $\sqrt[3]{x^2 + 6x} = -2$

c) $\sqrt{x - 2} + 3 = \sqrt{4x + 1}$

2. A wire is needed to support a telephone pole that is 23 feet high. The cable will be anchored to a stake that is 7.5 feet from the base of the pole. To the nearest tenth of a foot, how much cable is needed?

a) Draw a picture of the problem.

b) Clearly define your variable(s).

c) Solve.

d) Write your answer in a complete sentence.