

GEOMETRY

**Math Learning Standard E - 3** *Apply trigonometry to problem situations involving triangles and periodic phenomena.*

1. John is lying on the ground 75 feet away from the base of a tree. The angle of elevation to the top of the tree is  $37^\circ$ . Find the height of the tree.

a) Draw a picture to represent the situation. (1 pt.)

b) Set up an equation. (2 pts.)

c) Solve. (1 pt.)

2. Billy is flying a kite. He has let out 50 feet of string. If the string makes a  $25^\circ$  angle with the ground, how high above the ground is the kite?

a) Draw a picture to represent the situation. (1 pt.)

b) Set up an equation. (2 pts.)

c) Solve. (1 pt.)