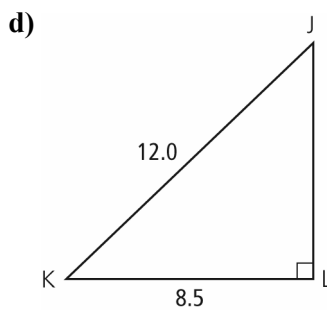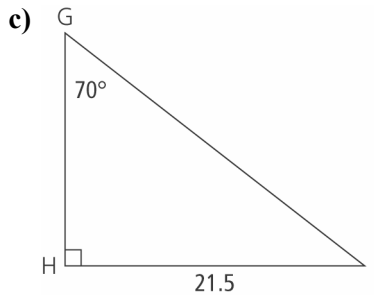Name: _____ Date: _____

Section 3.3 Extra Practice

1. Solve each triangle. Express your answer to one decimal place.

a)

b)

c)

d)
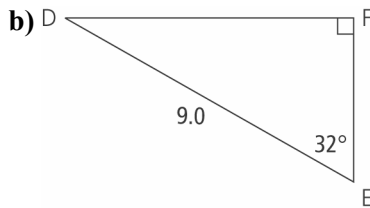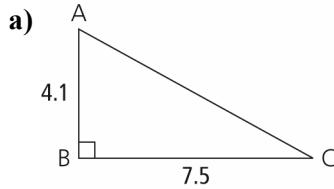
2. a) In $\triangle ABC$, $\angle A = 90°$, $BC = 11.5$ cm, and $AB = 2.7$ cm. Determine the measure of $\angle B$, to the nearest degree.

b) In $\triangle DEF$, $\angle D = 90°$, $DE = 1.6$ cm, and $\angle E = 42°$. Determine the measure of EF, to the nearest tenth of a centimetre.

3. A peregrine falcon has built a nest on a ledge of a building in Calgary, AB. The ledge is 34 m from the ground. Alain wants to take a photograph of the bird with his telephoto lens. He has set his camera up, waiting for the bird to return to the nest. His camera, sitting on a tripod, is 2 m from the ground. The angle of depression from the nest to Alain's camera is 28°.

a) How far is the tripod and camera from the building, to the nearest tenth of a metre?

b) At what angle does Alain have to set the tripod to take a picture of the nest? Express your answer to the nearest degree.

c) If Alain's lens can focus on objects up to 75 m away, can he focus on the falcon's nest? Justify your answer.
(**Hint:** Remember to take the height of the tripod into account.)
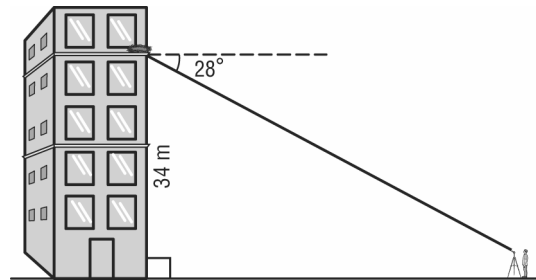
4. Calculate the measure of $\angle ABC$, to the nearest degree.