Math 120 D **Quiz 4** (25 minutes) Tuesday, October 28, 1997

Name _____ **Student number** _____ **Quiz section:** _____

Please **show your work** for full credit.

1. Al is flying a kite. When Al lets out 200 feet of string, the string makes a 40° angle with the level ground. Then, when Al lets out 10 feet more of string, the kite rises vertically and the string makes a 42° angle with the level ground. How many feet has the kite risen?

2. A wheel, of radius 5 ft and centered at the origin in the xy-plane, is rotating counterclockwise, driven via a belt by a drive wheel of radius 2 ft. The drive wheel is rotating at $\frac{1}{2}$ revolution/min.

(a) What is the angular speed (in radian/min) of the wheel?

(b) A point P on the rim of the wheel is initially at the position shown, find the x- and y-coordinate of P after 2 minutes.