Name _____   Student Number _____

Show all work. Label your answers clearly.

Melinda is out walking her dogs Katie and Cuddles. As Melinda pauses to tie her shoe in front of Mr. Harkema's house, Katie runs directly East, and Cuddles runs in a straight line toward a tree which is 32 yds North and 4 yds East of Melinda. Mr. Harkema has a circular flower bed, with radius 3 yds and center 2 yds North and 5 yds East of Melinda.

1. Draw a picture of the situation, impose a coordinate system, and label significant points.

2. If Cuddles runs at 18 ft/sec, when does Cuddles reach the tree?

3. Find the equation of the line Cuddles follows.

4. Where does Katie first enter the flower garden?