Experiment

Materials:

* About 14 feet of twine to be the standard height that the distances are measured from and the radius of the quarter circle.

* 3 foot dowel to attach string to

* measuring tape to measure exact distances from anemone to string and the size of each anemone.

Procedure:

I chose a place during low tide at Pillar Point in Half Moon Bay that looked like it had both an area that had minimal sun exposure, and an area right next to it that received a lot of sun. I then tied the string onto a rock that was 82 centimeters above the water level to be used as my standard so that I could compare the results from the two areas to each other. The other end of the string was attached to a dowel that my dad held level to the rock so that I could move it around so I could get accurate relative distances (the distance from the anemone to the string). I couldn�t use the water level as the standard since it is always changing and there are anemones both above and below it so it would have been more confusing. I also used the string to measure the size of the area. I took two test areas; one that was in a square shape (the shaded area) and the other in a circular shape (the sunlit area). For the circular area I measured the distance of the string from the rock to the dowel and used that as the radius of the circle (10 feet). Then counted all of the anemones within 15 degrees of the string, then I moved the string another 15 degrees and counted the anemones there. I continued to do this until I had gone 90 degrees- a quarter of a circle. Then I counted and recorded the sizes of the anemones found in the shadier area as well as their distances from the string. The shaded area is in a square shape because it was area underneath a part of the wall that was hanging over a couple of feet shading the anemones below it. I counted anemones that were two feet away from the base of the wall, and two feet along the wall for a length of 80 feet.

The pink string seen in the picture below is what I used as the standard for both the sunny area and the shady area. The shaded area can be seen in the left hand side of the photo, and the sunny area is on the right.

the picture above is of the tide pools at Pillar Point when the tide was high. The picture below is of the tide pools at low tide. The area that I looked at is completely covered with water during the highest tides, so at one point or another all of the anemones are protected by the water, but those that are farther from the string will be exposed to the air less than those that are closer to the string.