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As he swung his arm in a circle it felt like the ball was trying to move away from him, but his arm kept pulling it back in. As he released the ball it sped forward towards the catcher.

In the outfield, a little girl was playing with a rock she had tied to a string. She swung the rock around her head in a big circle. It felt like the rock was trying to pull away, but she kept pulling in on the string. When she let go, the rock flew away.

Watch out Nolan!

Seymour sat down at the computer. "Turn and move forward, turn and move forward. . . a little turn to the right, a little step forward ... repeat this over and over."

repeat a lot [right a little forward a little]

"What's a lot? What's a little?"

Euclid sat down at the computer. The turtle was at the center of the screen.

"That's convenient. I'll use that point as the center of the circle."

Go some distance away from the center and put a dot there. Forward something.

"Oops. The turtle draws a line."

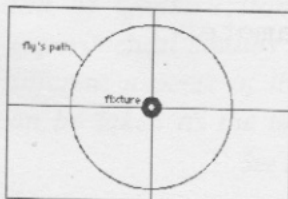
"Pick up the pen, go some distance away from the center and put a dot there."

"Pick up the pen, forward some and make a dot."

"Go back to the center face a different way and do the same thing again, and again, and again . . ."

Descartes, still lying in bed, picked up his computer and held it above him. Looking up, the turtle on the screen was like the fly on his ceiling. Unfortunately, in that position his arms got very tired and he didn't have a free hand to type with. So he put down the computer and sat up.

The turtle was in the center of the screen, the position of the light fixture on the ceiling.



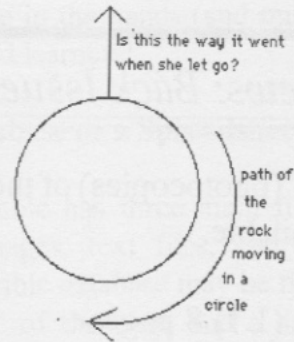
"Now what equation describes the fly's path?"

Nolan ducked into the dugout just in time to avoid the rock that went whizzing by. As he turned on his computer, the little girl came and sat down next to him.

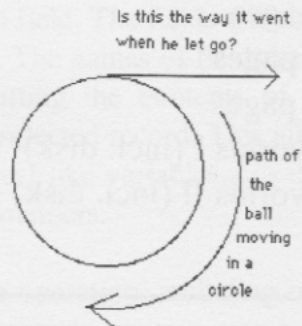
"Sorry 'bout that," she said. "I wasn't aiming for you."

She drew a picture.

"I let go when the rock was here. I thought it would go this way."



"I don't think that's right," said Nolan. "when I pitch, I let go of the ball when it's at the top of the circle and it goes forward."



"Oh, yeah," she said. "Maybe you're right."

"Let's see now," she said. "moving in a circle is like trying to go straight but getting pulled back in towards the center of the circle."

Go straight a bit, move in a bit towards the center, go straight a bit, move in a bit towards the center, forward some, turn