Assume the position

In the illustration, a 1.34 kg ball is connected by means of two strings, each of length L = 1.70 m to a vertical, rotating rod. The strings are tied to the rod with a separation of d = 1.70 m and are taut. The tension in the upper string is 35 N.

Find the following:
1. Tension in the lower string

2. Magnitude of the net force F_{net} acting on the ball

3. The speed of the ball

4. The direction of F_{net} from the horizontal

d

L

L

Rotating rod