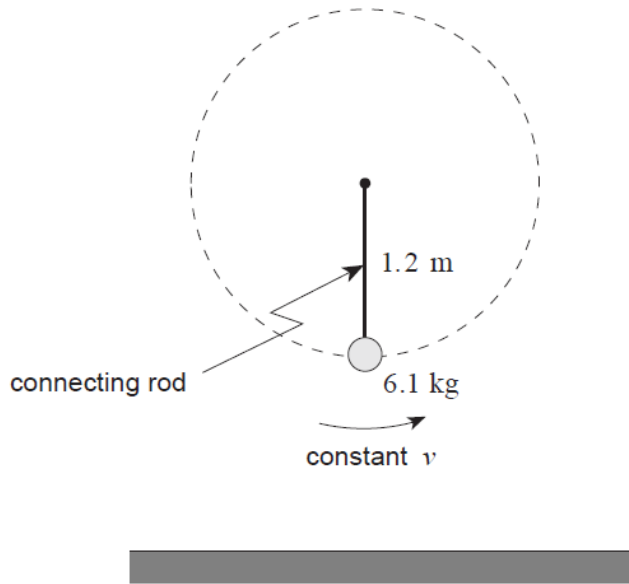A 6.1 kg object on the end of a massless connecting rod moves in uniform circular motion in a vertical circle with radius 1.2 m. The period of revolution is 0.80 s.

1.2 m

connecting rod

6.1 kg

constant v

a) Draw and label a free body diagram for the object at the bottom of the circular path.

(2 marks)

Calculate the tension in the connecting rod at this position.

(5 marks)