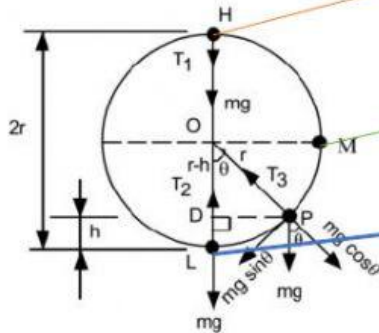


## Motion in a vertical Circle

A stone weighing 0.1 kg is whirled in a vertical circle at the end of a rope of a length 0.5 m.

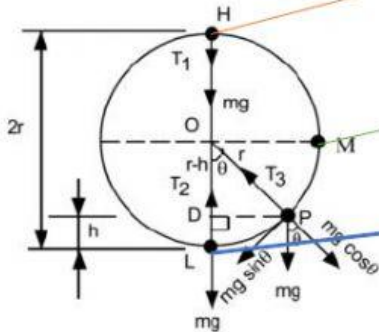
The **velocity** of stone at L, M, H are



Choose your answer:

0 N	58.8 N	29.4 N
3.83 m/s	2.21 m/s	4.95 m/s

The **tension** in the string at L, M, H are



2) A 2 Kg stone at the end of a string 1 m long is whirled in a vertical circle. The speed of the stone is 4 m/sec. The tension in the string will be 52N, when the stone is

- a) At the top of the circle                      b) At the bottom of the circle                      c) Halfway down

3) A motor cyclist loops a vertical circular loop of diameter 18 m, without dropping down, even at the highest point of the loop. What should be his minimum speed at the lowest point of the loop?

- (a) 10 m/s  
(b) 16 m/s  
(c) 21 m/s  
(d) 30 m/s

V V A RAO TA PHY ZIET BHUBANESWAR