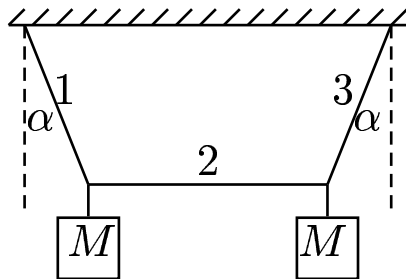


Two identical masses are suspended by the setup shown in the figure. From the symmetry, T_1 , the tension along string 1, has the same magnitude as T_3 , the tension along string 3.



Find T_2 the tension along string 2.

- A) $T_2 = T_1 \cos \alpha$
- B) $T_2 = T_1 \sin \alpha$
- C) $T_2 = 2 T_1 \cos \alpha$
- D) $T_2 = 2 T_1 \sin \alpha$

By inspection on string 2 there should be a force $T_1 \sin \alpha$ pulling horizontally to the left and an identical force pulling horizontally to the right. So the tension along the string 2 is $T_1 \sin \alpha$.

Answer **B**.