8 A uniform ladder of weight W rests against a vertical wall, tilted at an angle θ from a rough floor.

The floor exerts normal force N_F on the ladder. The wall exerts normal force N_w on the ladder.

Which of the following equations is correct?

A $N_F = N_W$

B $N_W \tan \theta = N_F - \dfrac{W}{2}$

C $N_F \tan \theta = N_W - \dfrac{W}{2}$

D $N_F \tan \theta = N_W + \dfrac{W}{2}$