Two masses are hanging from strings which have negligible mass. They are all stationary. What is the force due to String 2 on the mass $M_2$?

1) $M_1 g$ upward.
2) $M_1 g$ downward.
3) $M_2 g$ upward.
4) $M_2 g$ downward.
5) $M_1 g + M_2 g$ upward.
6) $M_1 g + M_2 g$ downward.
7) Zero.
8) None of the above.

Two masses are hanging from strings which have negligible mass. They are all stationary. What is the force due to the mass $M_1$ on String 2?

1) $M_1 g$ upward.
2) $M_1 g$ downward.
3) $M_2 g$ upward.
4) $M_2 g$ downward.
5) $M_1 g + M_2 g$ upward.
6) $M_1 g + M_2 g$ downward.
7) Zero.
8) None of the above.

Two masses are hanging from strings which have negligible mass. They are all stationary. What is the force due to String 1 on the mass $M_2$?

1) $M_1 g$ upward.
2) $M_1 g$ downward.
3) $M_2 g$ upward.
4) $M_2 g$ downward.
5) $M_1 g + M_2 g$ upward.
6) $M_1 g + M_2 g$ downward.
7) Zero.
8) None of the above.
Forces and Reference Frames
You are a passenger in a car and not wearing your seat belt. Without changing its speed, the car makes a sharp left turn, and you find yourself colliding with the right-hand door. Which of the following is correct?

1) Before and after your collision with the door, there is a rightward force pushing you towards the door.

2) Before your collision with the door, there is a rightward force pushing you towards the door but it goes away after the collision.

3) Starting at the time of your collision, the door exerts a leftward force on you.

4) Starting at the time of your collision, you exert a rightward force on the door.

5) Both (1) and (3) are correct.

6) Both (2) and (3) are correct.

7) Both (1) and (4) are correct.

8) Both (2) and (4) are correct.

9) Both (3) and (4) are correct.

10) None of the above are correct. (Hit key “0”).