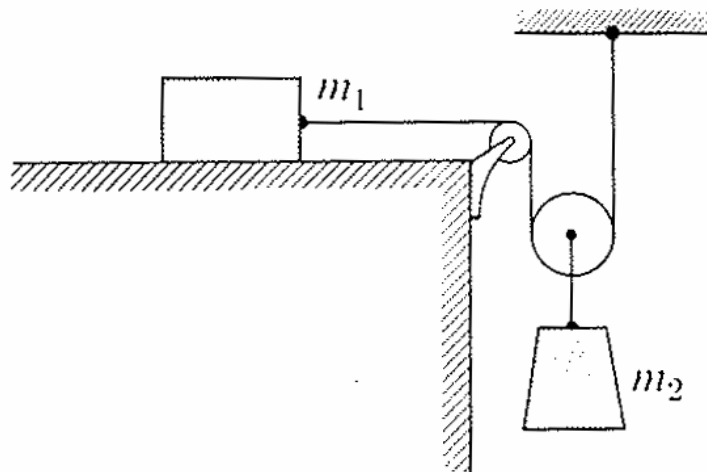


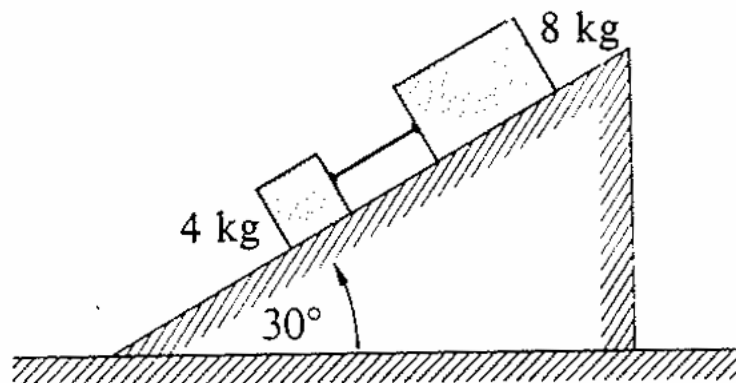
**5-41** In terms of  $m_1$ ,  $m_2$ , and  $g$ , find the acceleration of both blocks in Fig. 5-17. Neglect all friction and the masses of the pulleys.



**Fig. 5-17**

**5-44** Two blocks with masses of 4 kg and 8 kg, respectively, are connected by a string and slide down a  $30^\circ$  inclined plane, as in Fig. 5-20. The coefficient of sliding friction between the 4-kg block and the plane is 0.25, and between the 8-kg block and the plane it is 0.50.

- Calculate the acceleration of each block.
- Calculate the tension in the string.



**Fig. 5-20**