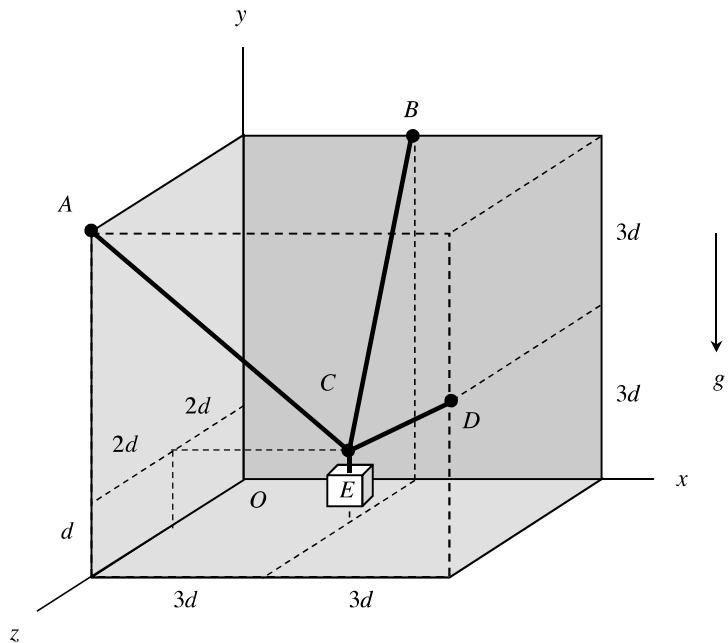


### Homework H3.A

**Given:** Cables AC and BC carry tensions of  $T_{CA}$  and  $T_{CB}$ , respectively.

**Find:**

- Determine the vector projection of the force of cable AC on block E onto cable CD. Write your answer as a vector in terms of  $T_{CA}$ .
- Determine the vector projection of the force of cable BC on block E onto cable CD. Write your answer as a vector in terms of  $T_{CB}$ .



### Homework H3.B

**Given:** Cables AC and AB carry tensions of  $T_{AC}$  and  $T_{AB}$ , respectively. Let  $\vec{F}_{AC}$  and  $\vec{F}_{AB}$  represent the forces of cables AC and AB on boom pole AD, respectively.

**Find:**

- Determine the vector projection of the force  $\vec{F}_{AC}$  onto boom pole AD. Write your answer as a vector.
- Determine the angle between cables AB and AC.

