

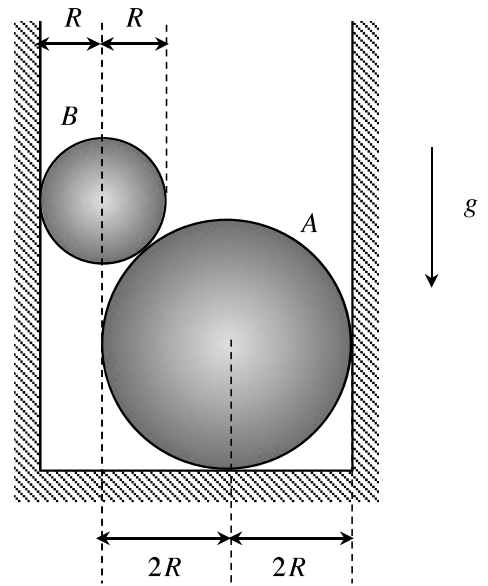
Homework Problem H4.A

Given: Spheres A and B have masses of m_A and m_B , respectively. All surfaces are smooth.

Find:

- Determine the reaction force of sphere A acting on sphere B.
- Determine the reaction forces of the channel at the 3 points of contact (left, right and bottom).

Use the following parameters in your analysis: $m_A = 45$ kg and $m_B = 20$ kg.



Homework Problem H4.B

Given: Block E having a weight of W_E is supported by cable wrapped over an ideal pulley.

Find:

- Determine the tensions cables AB and AC.
- Determine the weight of block D.

Use the following parameters in your analysis: $W_E = 250 \text{ lb}$ and $\theta = 53.13^\circ$.

