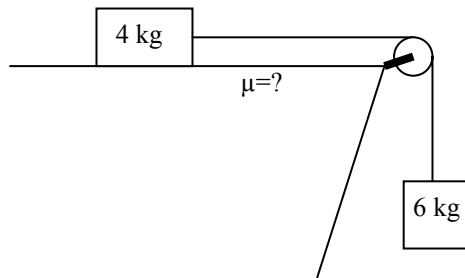# Energy
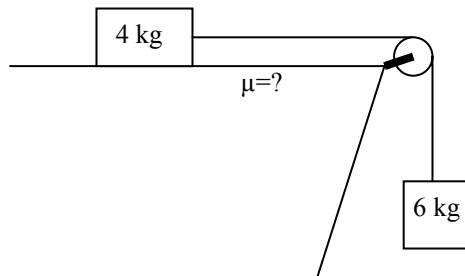Systems
Solve Using Energy Methods



1. The system above is released from rest. The instance the suspended mass has fallen 8 meters, the blocks have speeds of 8 m/s.

   a. How much GPE did the suspended mass "lose" the instance the suspended mass has fallen 8 meters?

   b. Where did the GPE "lost" go?  Note: disregard air resistance.

   c. What is the KE of each block, the instance the suspended mass has fallen 8 meters?

   d. How much energy did the frictional force "take away" from the system (neg. work)?

   e. How large is the frictional force?

   f. What is the coefficient of friction?

# Energy
### Systems
### Solve Using Energy Methods



1. The system above is released from rest. The instance the suspended mass has fallen 8 meters, the blocks have speeds of 8 m/s.

a. How much GPE did the suspended mass "lose", the instance the suspended mass has fallen 8 meters?

480 joules

b. Where did the GPE "lost" go?  Note: disregard air resistance.

"lost" to friction & KE

c. What is the KE of each block, the instance the suspended mass has fallen 8 meters?

$block_{4kg}$=128 joules    $block_{6kg}$=192 joules

d. How much energy did the frictional force "take away" from the system (neg. work)?

160 joules

e. How large is the frictional force?

20 N

f. What is the coefficient of friction?

0.5