

Work Done in lifting objects



The work done on an object raised up is transferred into potential energy. Calculate the work done on the object and then state the object's gravitational potential energy

1. Calculate the work done on a 100 kg barbell when a weightlifter lifts it up to a height of 2 metres.



2. Calculate the work done on a barbell, mass = 200 kg when lifted to a height of 2.5 m



3. Find the work done on a 400 kg girder when it is lifted 20 m.



4. Find the work done on a 10,000 kg plane when it ascends vertically by 300 m



5. Find the work done on a 2 litre bottle of water raised by 1.5 m.



6. Find the height a 5 kg box has to be lifted to for the work done on the box to be 294 J.

7. Find the height that a 70 kg worker must climb so that the work done by him is 6,860 J



8. How high must you lift a 0.2 kg apple to make the work done on it be 0.98 J

9. Find the mass of a box that is lifted 5m from the ground and has 98 Joules of work done on it.