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**PE word problems**

**PE=mgh g= 9.8m/s2**

1. What is the potential energy of an 8-kilogram ball that is elevated (raised) to a height of 5 meters?

2. Determine the potential energy of a 2.0kg toy airplane that is flying at an altitude of 4 meters.

3. If a 4 kg object has a potential energy of 200 joules, what is the object’s height?

4. A 2.3kg red robin flies up into a tree. At the very top of the tree the Robin has a potential energy of 48 joules. What is the height of the tree?

5. A 1.0 kg squirrel is 2 meters above the ground. The squirrel then climbs to a height of 4.5 meters. What was the change in the squirrel’s Potential Energy during the climb?

6. A 10 kg mass is dropped from a height of 17 m to 3 m. What is the change in potential energy?

7. A 5 kg mountain lion climbs a mountain. The lion ascends from 2 meters to 35 meters. What is the mountain lions change in potential energy?

8. A 50kg car drives down from an altitude of 58 meters to an altitude of 32 meters. Calculate the change in potential energy of the vehicle.

9. How much potential energy does a 0.25kg pinecone have that is 46 meters high up in a tree?

Scientist: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per: \_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

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