Kinetic Energy Calculations

Calculate their kinetic energy stores for each of the following creatures;

a) A dog with mass 20 kg running at 16 m/s.

b) A cat with mass 8 kg running at 20 m/s.

c) A falcon with mass 2.5 kg flying at 32 m/s.

d) A cow with mass 210 kg walking at 1 m/s.

e) A human with mass 70 kg running at 7 m/s.

f) A field mouse with mass 60 g running at 3 m/s.

HINT: The correct order, from greatest to smallest energy is a, e, b, c, d, f

Check that you have this order for your answers before you click Finish.

If you do not have this order, the check then check these two facts;

1. You must square the velocity when calculating kinetic energy
2. The quantities must all be in the correct SI units.

Extension: How fast would the human in part (e) need to run to store the same kinetic energy as the dog running in part (a)?

Give your answer to three significant figures.

When you have checked your work, click Finish and select the option to send this work to your teacher.