1 A train travels with a constant velocity of 56 m/s on a horizontal track. The mass of the train is 440 000 kg.

(a) State the difference between the velocity of the train and its speed.

.....

..... [1]

(b) Calculate the kinetic energy stored in the moving train.

kinetic energy = ... [2]

(c) **(i)** The train has a uniform deceleration of 1.2 m/s^2.

Calculate the constant braking force which brings the train to rest.

force = ... [2]

(ii) Calculate the distance travelled by the train as it comes to rest.

distance = ... [3]

[Total: 8]