

Dropped Ball

A certain type of ball bounces back up 0.8 of the distance it is dropped.

- (a) If a ball of this type is dropped from a height of 2 metres
- (i) how many bounces will it make before it rises less than 70 centimetres?
 - (ii) how high will it rise on the tenth bounce?
 - (iii) how high will it rise on the x th bounce?
- (b) Discuss what would happen if the bounce or the initial height was changed by
- (i) finding a formula
 - (ii) drawing graphs to show different heights and bounces

[See module 3B for information about exponential decay]

