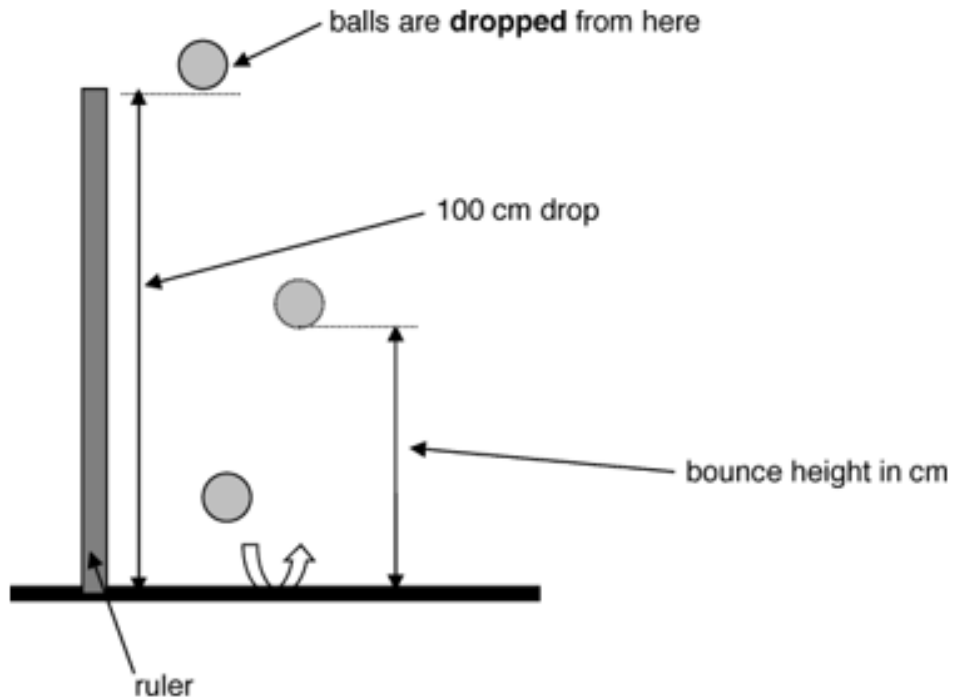


Gateway Science Physics A
J249/02 Physics A P5-P8 and P9 (Foundation Tier)

Question Set 23

A student investigates how well different balls bounce.

- She drops five different balls from the same height and measures the height the balls bounce.
- She repeats the experiment three times for each ball.



Her results are shown in **Table 1.1**.

Ball	Drop height (cm)	Bounce height (cm)			Mean bounce height (cm)
		1st reading	2nd reading	3rd reading	
Red	100	75	77	73	75
Blue	100	61	62	60	61
Green	100	60	31	58	59
White	100	84	86	85	85
Yellow	100	26	24	28	26

Table 1.1

- (e) Explain how energy is transferred and lost from the ball when it bounces.

On impact with the ground, some of the kinetic energy is transferred to heat and sound energy which is dissipated to the environment.

[2]

Total Marks for Question Set 23: 10

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