

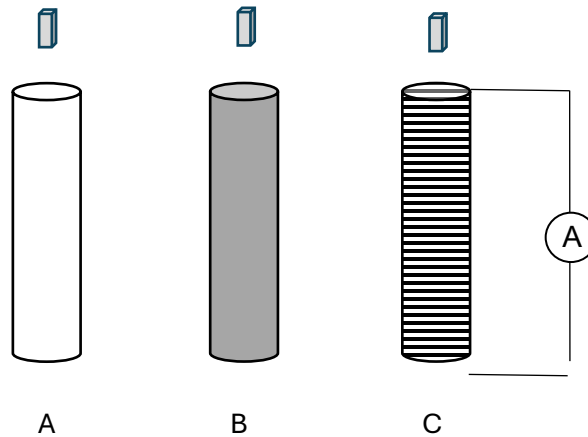
**8** Fig. 8.1 shows a magnet dropped from rest through

A: a plastic pipe

B: a copper pipe

C: a solenoid tightly wound using insulated copper wire. An ammeter is connected to the solenoid in series.

A, B and C have the same dimensions.



**Fig. 8.1**

**(a)** List, from the fastest to the slowest, which pipe will the magnet fall through first.

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

[1]

**(b)** There is a time difference the magnet takes to fall through B and C.

Explain why this is so.

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[3]

