

**TOPIC**

Fluids

**QUESTION**

Water flows with a velocity of 1 m/s in a pipe with an inner diameter of 5 cm. The flow is split into 2 pipes, each having an inner diameter of 3 cm. The velocity in the 3 cm pipes (in m/s) is

- (A) 1.38
- (B) 1.67
- (C) 2.76
- (D) 3.34

**HINTS**

- mass flow rate = density  $\times$  velocity  $\times$  cross sectional area
- mass is conserved when the flow goes from two pipes to one

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