

**19** A hammer with 10 J of kinetic energy hits a nail and pushes it 5.0 mm into a plank.

Both the hammer and nail come to rest after the collision.

What is the average force that acts on the nail while it moves the 5.0 mm?

**A** 0.050 N

**B** 2.0 N

**C** 50 N

**D** 2000 N

**20** The diagram shows two vessels, P and Q, both with sides inclined at  $45^\circ$