7. . A worker does 500 J of work on a 10 kg box. If the box transfers 375 J of heat to the floor through the friction between the box and the floor, what is the velocity of the box after the work has been done on it? (A) 5 m/s (B) 10 m/s (C) 12.5 m/s (D) 50 m/s (E) 100 m/s