**10** In order that a train can stop safely, it will always pass a signal showing a yellow light before it reaches a signal showing a red light. Drivers apply the brake at the yellow light and this results in a uniform deceleration to stop exactly at the red light.

The distance between the red and yellow lights is $x$.

If the speed of the train is increased by 20%, without changing the deceleration of the train, what must be the minimum distance between the lights?

**A** $1.20\,x$ **B** $1.25\,x$ **C** $1.44\,x$ **D** $1.56\,x$