

- 12** An external agent does 50 J of work in moving a mass of 2.0 kg from point A to point B in a gravitational field, and -60 J of work in moving the mass from point B to point C. Finally, the external agent does work of 1000 J in moving the mass from point C to infinity.

What is the gravitational potential at point A?

- A** -555 J kg^{-1}
- B** -505 J kg^{-1}
- C** -495 J kg^{-1}
- D** -445 J kg^{-1}