10 An external agent does 100 J of work in moving a 2.0 kg mass from point X to point Y in a gravitational field, and –120 J of work in moving the mass from point Y to point Z. Finally, the external agent does 2000 J of work in moving the mass from point Z to infinity.

What is the gravitational potential at point X?

A –990 J kg^{-1} **B** –1010 J kg^{-1} **C** –1110 J kg^{-1} **D** –1980 J kg^{-1}