11 A bungee jumper has 24 kJ of gravitational potential energy at the top of his jump. He is attached to an elastic rope which starts to stretch after a short time of free fall. The values of gravitational potential energy, elastic potential energy and kinetic energy are given for the top and the bottom of the jump.

	gravitational potential energy / kJ	elastic potential energy / kJ	kinetic energy / kJ
top	24	0	0
bottom	0	24	0

Which row of the table below shows possible values of these three energies when the jumper is half-way down? Losses of energy through air resistance are negligible.

	gravitational potential energy / kJ	elastic potential energy / kJ	kinetic energy / kJ
A	12	10	2
B	12	8	4
C	8	8	8
D	12	2	10

12 An astronomer points a powerful laser beam at the Moon, a distance R away. The beam has a