

- 17** A 500 W electric kettle is used to boil water and is left on even after the water begins to boil. After 5 minutes, the temperature of its heating coil reaches a constant value.

When the first law of thermodynamics is used to quantitatively describe the heating coil after this time, which row correctly describes the application of the first law?

	rate of increase of internal energy / W	rate of heat supplied to the coil / W	rate of work done on the coil / W
A	+500	+500	0
B	+500	0	+500
C	0	+500	-500
D	0	-500	+500