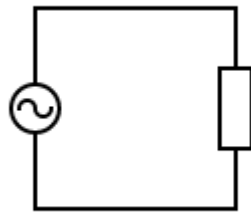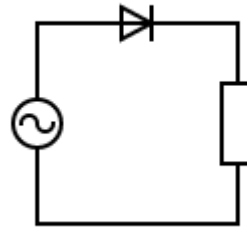**27** A circuit with a sinusoidal alternating power supply is rectified with a diode as shown.

before rectification   **after rectification**

The mean power of the circuit before rectification is *P*.

What is the peak and mean power of the circuit after rectification?

	peak power	mean power
A	0.5P	0.5P
B	P	0.5P
C	2P	0.5P
D	2P	P