**17** A mechanical device does useful work at rate $X$ and wastes energy at rate $Y$.

Which expression gives the efficiency of this device?

**A** $\dfrac{X}{Y}$     **B** $\dfrac{(X-Y)}{Y}$     **C** $\dfrac{X}{(X+Y)}$     **D** $\dfrac{(X-Y)}{(X+Y)}$