**17** Researchers have developed a new type of filament lamp with an efficiency of 40%. Old-type filament lamps have an efficiency of 5.0%. The two types of lamp produce the same useful output power.

What is the ratio $\dfrac{\text{input power to new type of lamp}}{\text{input power to old type of lamp}}$?

**A** 0.13 **B** 0.63 **C** 1.6 **D** 8.0