

**30** Two radioactive specimens X and Y have activity and number of radioactive atoms as shown.

	activity / Bq	number of atoms
X	$3.68 \times 10^8$	$4.00 \times 10^{19}$
Y	$4.60 \times 10^7$	$2.00 \times 10^{19}$

What is the ratio  $\frac{\text{half-life of X}}{\text{half-life of Y}}$ ?

**A** 0.0313

**B** 0.250

**C** 4.00

**D** 16.0

