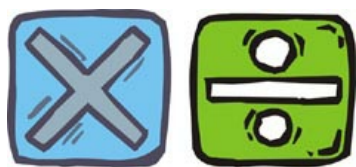# Index arithmetic

Here are some numbers written in index form.
Simplify each of the following and write as single powers.

Do not calculate the answer. Example: $5 \times 5 = 5^2$

a) $8^3 \times 8^4$ = _____

b) $5^6 \times 5^{-3}$ = _____

c) $2^8 \div 2^3$ = _____

d) $9^6 \div 9^8$ = _____

e) $(7^5)^3$ = _____

f) $\dfrac{3^4 \times 3^6}{3^2}$ = _____

g) $\dfrac{5^2 \times 5^4}{5^3 \times 5^9}$ = _____

h) $6^3 \times 36$ = _____