## **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) 
$$\frac{3^4 \times 3^6}{3^2}$$
 =

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

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