

## Indices - Addition Rule

Name:	Class:	Date:
-------	--------	-------

Mark	/ 12	%
------	------	---

1) Evaluate the following. Where appropriate, leave your answer as a fraction. [6]

a)  $10^3 \times 10^2$

b)  $10^4 \times 10^{-1}$

c)  $3^{-4} \times 3^4$

d)  $5^{-4} \times 5^2$

e)  $10 \times 10^0$

f)  $5^5 \times -5^{-6}$

2) Simplify, giving your answer in index form [6]

a)  $7^5 \times 7^5$

b)  $2^5 \times 2^{-3}$

c)  $2^{-3} \times 2^3$

d)  $2^{-2} \times 2^{-4}$

e)  $2^{-3} \times 2$

f)  $-7^6 \times -7^3$

## Solutions for the assessment Indices - Addition Rule

1) a) 100000

b) 1000

c) 1

d)  $\frac{1}{25}$

e) 10

f)  $-\frac{1}{5}$

2) a)  $7^{10}$

b)  $2^2$

c) 1 or  $2^0$

d)  $2^{-6}$  or  $\frac{1}{2^6}$

e)  $2^{-2}$  or  $\frac{1}{2^2}$

f)  $7^9$