

# Indices - Subtraction Rule

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

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

1) Evaluate the following. Where appropriate, leave your answer as a fraction. [4]

a)  $4^4 \div 4^3$

b)  $\frac{2^6}{2^5}$

c)  $4^2 \div 4^{-3}$

d)  $\frac{3^4}{3^{-1}}$

2) Simplify, giving your answer in index form [8]

a)  $6^6 \div 6^2$

b)  $\frac{5^5}{5^3}$

c)  $3^4 \div 3^5$

d)  $5^{-2} \div 5^{-3}$

e)  $2^{-4} \div 2^{-3}$

f)  $\frac{5^2}{5^4}$

g)  $\frac{6^{-3}}{6^{-6}}$

h)  $\frac{5^{-4}}{5^{-3}}$

## Solutions for the assessment Indices - Subtraction Rule

1) a) 4

b) 2

c) 1024

d) 243

2) a)  $6^4$

b)  $5^2$

c)  $3^{-1}$  or  $\frac{1}{3}$

d) 5 or  $5^1$

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

f)  $5^{-2}$  or  $\frac{1}{5^2}$

g)  $6^3$

h)  $5^{-1}$  or  $\frac{1}{5}$