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) 6⁴

b) 5²

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

d) 5 or 5¹

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

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

g) 6³

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