

# Indices Rules - Fractional Index

Name:	Class:	Date:
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Mark	/ 10	%
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1) Evaluate [4]

a)  $64^{\frac{1}{2}}$

b)  $27^{\frac{1}{3}}$

c)  $8^{\frac{2}{3}}$

d)  $25^{\frac{3}{2}}$

2) Evaluate, giving your answer as an integer or simplified fraction [1]

$125^{-\frac{4}{3}}$

3) Give the following expression in index form [5]

a)  $\sqrt{6}$

b)  $\sqrt[3]{5}$

c)  $\sqrt[6]{6}$

d)  $(\sqrt{7})^3$

e)  $\frac{1}{\sqrt[3]{5}}$

## Solutions for the assessment Indices Rules - Fractional Index

1) a) 8

b) 3

c) 4

d) 125

2)  $\frac{1}{625}$

3) a)  $6^{\frac{1}{2}}$

b)  $5^{\frac{1}{3}}$

c)  $6^{\frac{1}{6}}$

d)  $7^{\frac{3}{2}}$

e)  $\frac{1}{5^{\frac{1}{3}}}$  or  $5^{-\frac{1}{3}}$