

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 $5^{-\frac{1}{3}}$