

Surds and Indices

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1) Surds and Indices: Easier

1) Match each surd to its index form equivalent. One has been done for you.

$\sqrt{2}$	$2^{-\frac{1}{2}}$
$\frac{1}{\sqrt{2}}$	$2^{\frac{1}{2}}$
$2^2\sqrt{2}$	$2^{\frac{5}{2}}$
$2\sqrt{2}$	$2^{-\frac{3}{2}}$
$\frac{1}{\sqrt{8}}$	$2^{\frac{3}{2}}$

(4 marks)

2) Write $\sqrt{3}$ in the form 3^n

.....

(1 marks)

3) Write $\frac{1}{\sqrt{5}}$ in the form 5^n

.....

(1 marks)

1) Surds and Indices: Medium

4) Show that $3^{\frac{3}{2}}$ can be written in the form $a\sqrt{3}$

.....

(2 marks)

5) Show that $8^{\frac{1}{2}}$ can be written in the form $a\sqrt{2}$

.....

(2 marks)

6) Write $\frac{7}{\sqrt{7}}$ in the form 7^n

.....

(2 marks)

1) Surds and Indices: Harder

7) Show that $27^{-\frac{1}{2}}$ can be written in the form $\frac{\sqrt{3}}{a}$

.....

(3 marks)

8) Show that $20^{-\frac{3}{2}}$ can be written in the form $\frac{\sqrt{5}}{a}$

.....

(4 marks)

9) Write $24\sqrt{3}$ in the form 12^n

.....

(4 marks)