Name:

Level 2 Further Maths

Negative Indices
Fractional Indices

Corbettmaths

Ensure you have: Pencil or pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Revision for this topic

www.corbettmaths.com/more/further-maths/

1. Write as a single power of x

(a) $\frac{1}{x^3}$

……..

(1)

(b) $\sqrt[4]{x}$

……..

(1)

(c) $\sqrt{\frac{1}{x^8}}$

……..

(1)

(d) $\frac{1}{\sqrt[3]{x^2}}$

……..

(1)

2. Write $\dfrac{m^3 \times m^2}{(m^7)^2}$ as a single power of m

.....

(2)

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3. Given that $2^m + 2^n = \dfrac{9}{32}$

Find mn

.....

(3)

4. $x \quad x^3 \quad x^0 \quad x^{-2}$

Find a value of x such that the expressions above are in order, from smallest to largest.

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(3)

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5. Write $\sqrt{w^5}$ as a single power of w

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(1)

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6. Write 27 in the form 9^n

.....

(1)

7. Simplify $(16x^8)^{\frac{3}{4}}$

.....

(2)

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8. Evaluate $\left(\frac{8}{125}\right)^{-\frac{2}{3}}$

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(2)

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9. $3^x = 9\sqrt{3}$ and $3^y = \frac{1}{\sqrt{3}}$

Work out 3^{x-y}

.....

(5)