



CSEE- Basic Maths

Indices & Logs

Questions and Answers

Videos with expert tutorials on each topic

CSEE Basic Maths

Revision Topic: Indices and Logs

Section A

Lesson 2 (Revision Week 1)

Instructions: Complete this worksheet and watch this revision video simultaneously on

www.mathsmemory.co.uk/International

Pause and Play the video unlimited times to review your work and write the answers in the blank spaces.

Once you have written your answers, check these with the tutorial answers, as explained in the video.

Self Assess yourself (Out of 10) on your **revision planner** after you have completed the revision video .



Question 1

a) Simplify $\frac{2}{1 + \sqrt{5}}$

b) Simplify $\frac{2}{3\sqrt{2} - 1}$

Bronze



Question 2

Work out the value of x

a) $2^x = \frac{1}{8}$

Hence work out the value of $a + b + c$

b) $2^a = \frac{1}{8}$, $2^b = 8\sqrt{2}$, $2^c = \frac{1}{2\sqrt{2}}$

Bronze



Question 3

Simplify

a) $\log_3 3 + \log_3 9 =$

b) $\log_2 12 - \log_2 3 =$

c) $\log 3^x =$

Work out the value of x

d) $\log_2 x = 3$

Bronze



Question 4

Work out the value of x

a) $3^3 \times 9 = 3^x$

b) $16^{\frac{1}{5}} \times 2^x = 8^{\frac{3}{4}}$

c) $4^{2x-4} = 8^{x+2}$

Silver



Question 5

a) Show that $\frac{2 - 4\sqrt{2}}{2 + 2\sqrt{2}}$ can be simplified to $3\sqrt{2} - 5$

Silver





Question 6

Work out the value of n

a) $n \log_3 81 = \log_2 8$

Silver



Question 7

Work out the value of y

a) $\log_3 (4y - 2) - 2 = \log_3 (y + 2)$

Silver



Question 8

Work out the value of

a) $8^{\frac{1}{4}} \times (\sqrt{2})^{-4} \times 2^{\frac{3}{2}}$

Silver



Question 9

Work out the value of x and y

a)
$$\frac{2^{x-2}}{3^{3y}} = 432$$

Silver



Question 10

Given that $\log 3 = 0.4771$ and $\log 2 = 0.301$, find the value of $\log(3^{3/8})$, without using mathematical tables.



Question 11

Express the expression

a) $2^{3y-1} + 3 \times 2^{y+2}$

in terms of P given that $P = 2^y$



Question 12

a) Work out the value of x

$$\sqrt{4^{3x-3}} + 8 = 72$$

Gold



Question 13

Evaluate $\log_{10}(13500)$, given that $\log_{10} 2 = 0.301$, $\log_{10} 3 = 0.4771$
 $\log_{10} 5 = 0.699$

Platinum

