

INTENSIVE REVISION QUESTIONS (ERQ)

SET 5

Name :

Form :

Teacher:

1. $7^x - 343 = 0$ [2 marks]
2. Simplify $216^{-10x+2} \div 6^{2x-12}$. [3 marks]
3. Simplify the expression $\log_6 9^4 - \log_6 9^3$ in one single logarithm term. [3 marks]
4. Express the equation $7^3 = 343$ in logarithmic form. [2 marks]
5. Simplify the expression $\log_{12} 6 + \log_{12} 2$ in one single logarithm term. [3 marks]
6. Simplify the expression $\log_7 5 - \log_7 1$ in one single logarithm term. [3 marks]
7. By using scientific calculator, find the value of $\log_5 5$. [2 marks]
8. Simplify $4^{-3x-12} \div 8^{10x+4}$. [3 marks]
9. Express the equation $\log_2 q = 10$ in index form.
Hence, find the value of q . [4 marks]
10. Solve the equation $64^{9x+1} = 512^{5x-1}$. [4 marks]
11. $(u^2)^7 =$ [2 marks]
12. $(h^{-5})^{-3} =$ [2 marks]
13. By using scientific calculator, find the value of $\log_7 6$. [2 marks]
14. $6^x = 36$ [2 marks]
15. Express the equation $5^3 = 125$ in logarithmic form. [2 marks]
16. Solve the equation $49^{4x+7} = 343^{6x-9}$. [4 marks]
17. Simplify $4^{-7x-4} \times 2^{-3x-3}$. [3 marks]
18. Solve the equation $9^{8x+2} - 1 = 0$. [4 marks]
19. Express the equation $\log_7 c = 3$ in index form.

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Hence, find the value of c .

[4 marks]

20. Simplify $10^{-5x-10} \times 100^{5x+12}$.

[3 marks]

Answers:

1. $x = 3$

2. $6^{-32x+18}$

3. $\log_6 9$

4. $\log_7 343 = 3$

5. $\log_{12} 12$

6. $\log_7 5$

7. 1.0000

8. $2^{-36x-36}$

9. $q = 2^{10}$, $q = 1024$

10.

$$x = \frac{-5}{3}$$

11. u^{14}

12. h^{15}

13. 0.9208

14. $x = 2$

15. $\log_5 125 = 3$

16.

$$x = \frac{41}{10}$$

17. $2^{-17x-11}$

18.

$$x = \frac{-1}{4}$$

19. $c = 7^3$, $c = 343$

20. 10^{5x+14}