Practice quiz on Exponents and Logarithms

NÚMERO TOTAL DE PONTOS 12

1. Re write the number $784 = 2 \times 2 \times 2 \times 2 \times 7 \times 7$ using exponents. 1 ponto

- $(2^6)(7^6)$
- $(16^4)(49^2)$
- $(2 \times 7)^6$
- $(2^4)(7^2)$ ✓

2. What is $(x^2 - 5)^0$? 1 ponto

- (x^2)
- $(x^2) - 5$
- -4
- 1 ✓

3. Simplify $((x - 5)^2)^{-3}$ 1 ponto

- $(x - 5)^{-6}$ ✓
- $(x - 5)^{-1}$
- $(x - 5)^{-5}$
- $(x - 5)$

4. Simplify {\large \begin {align}({\frac{8^2}{8^7}})^2\end {align}} 1 ponto

- [x] 8^{-10}
- [ ] 8^{-4}
- [ ] 8^{-5}
- [ ] 8^{-1}

5. $\log 35 = \log 7 + \log x$ 1 ponto

Solve for x

- [ ] 4
- [ ] 7
- [x] 5
- [ ] 28

6. $\log_2(x^2 + 5x + 7) = 0$ 1 ponto

Solve for x

- [ ] $x = 3$
- [ ] $x = 2$
- [x] $x = -2$ or $x = -3$
- [ ] $x = 2$ or $x = 3$

7. Simplify $\log_2 72 - \log_2 9$ 1 ponto

- [ ] 4
- [ ] $\log_2 4$
- [x] 3

- ○ $\log_2 63$

8. Simplify $\log_3 9 - \log_3 3 + \log_3 5$ — 1 ponto

- ○ $\log_3 8$
- ○ 8
- ○ 15
- ◉ $\log_3 15$

9. Simplify $\log_2(3^8 \times 5^7)$ — 1 ponto

- ○ $56 \times \log_2 15$
- ◉ $(8 \times \log_2 3) + (7 \times \log_2 5)$
- ○ $15 \times \log_2 56$
- ○ $(5 \times \log_2 3) + (8 \times \log_2 5)$

10. If $\log_{10} y = 100$, what is $\log_2 y = ?$ — 1 ponto

- ◉ 332.19
- ○ 20
- ○ 301.03
- ○ 500

11. A tree is growing taller at a continuous rate. In the past 12 years it has grown from 3 meters to 15 meters. What is its rate of growth per year? — 1 ponto

- ○ 10.41%
- ◉ 13.41%

- 12.41%
- 11.41%

12. Bacteria can reproduce exponentially if not constrained. Assume a colony grows at a continually compounded rate of 400% per day. How many days before a colony with initial mass of $6.25 \text{ X } 10^{-10}$ grams weights 1000 Kilograms? 1 ponto

- 0.875 days
- 875 days
- 8.75 days
- 87.5 days

Eu compreendo que enviar um trabalho que não seja meu pode resultar em fracasso permanente deste curso ou desativação de minha conta do Coursera.

Saiba mais sobre o Código de Honra do Coursera

Cinthya Langue Blois