Corrigé
Logarithme décimal
Propriétés algébriques.

Exercice 1.

Compléter les ... dans chaque égalité :

1. $\log(2) + \log(5) = \log(2 \times 5) = \log(10)$

2. $\log(1) + \log(2) + \log(3) + \log(4) = \log(1 \times 2 \times 3 \times 4) = \log(24)$

3. $\log(12) + \log(12) + \log(12) = \log(12^3) = \log(1728)$

4. $5\log(12) = \log(12^5) = \log(248832)$

5. $10\log(2) = \log(2^{10}) = \log(1024)$

6. $\log(15) - \log(5) = \log\left(\dfrac{15}{5}\right) = \log(3)$

7. $\log(175) - \log(2) - \log(5) = \log\left(\dfrac{175}{5 \times 2}\right) = \log(17,5)$

8. $3\log(7) - 2\log(3) + 5\log(2) = \log\left(\dfrac{7^3 \times 2^5}{3^2}\right) = \log\left(\dfrac{10976}{9}\right)$

9. $\log(4096) = \log(2^{12}) = 12\log(2)$

10. $\log(12) = 2\log(2) + \log(3)$

11. $\log(6125) = 3\log(5) + 2\log(7)$

12. $\log(7^4) - \log(7^2) + 5\log(7) = (4 - 2 + 5)\log(7) = 7\log(7)$