**Calcul de logarithmes**

- Calculer

1) $\log_2(64) =$

2) $\log_{\frac{1}{3}}(27) =$

3) $\log_5\left(\sqrt{125}\right) =$

4) $\log_6\left(\dfrac{1}{\sqrt[3]{36}}\right) =$

5) $\log_{10}(0.0001) =$

6) $\log_{10}(1000) =$

7) $\log_{\frac{1}{7}}(49) =$

8) $\log_{16}\left(\dfrac{1}{4}\right) =$

9) $\ln\left(\dfrac{1}{e^5}\right) =$

10) $\ln\left(\dfrac{1}{\sqrt[3]{e}}\right) =$

11) $\ln\left(\sqrt{e}\right) =$

12) $\log_2(0.125) =$

- Solutions

$\log_2(64) = 6$

$\log_{\frac{1}{3}}(27) = -3$

$\log_5\left(\sqrt{125}\right) = \dfrac{3}{2}$

$\log_6\left(\dfrac{1}{\sqrt[3]{36}}\right) = -\dfrac{2}{3}$

$\log_{10}(0.0001) = -4.$

$\log_{10}(1000) = 3$

$\log_{\frac{1}{7}}(49) = -2$

$\log_{16}\left(\dfrac{1}{4}\right) = -\dfrac{1}{2}$

$\ln\left(\dfrac{1}{e^5}\right) = -5$

$\ln\left(\dfrac{1}{\sqrt[3]{e}}\right) = -\dfrac{1}{3}$

$\ln\left(\sqrt{e}\right) = \dfrac{1}{2}$

$\log_2(0.125) = -3.$

- Calculer sans utiliser la calculatrice, sachant que $\log 2 = 0{,}30103$ et $\log 3 = 0{,}477121$:

1) $\log\left(\dfrac{1}{\sqrt[3]{6}}\right)$

2) $\log(9)$

3) $\log\left(\dfrac{27}{2}\right)$

4) $\log(324)$

5) $\log\left(\dfrac{1}{\sqrt{3}}\right)$

■ Solutions :

1) $-\dfrac{\log(2)}{3} - \dfrac{\log(3)}{3}$

2) $2\log(3)$

3) $3\log(3) - \log(2)$

4) $2\log(2) + 4\log(3)$

5) $-\dfrac{\log(3)}{2}$