**Potęga o wykładniku całkowitym ujemnym – powtórzenie wiadomości.**

<https://www.youtube.com/watch?v=PA-vlILkEyk>

<https://www.youtube.com/watch?v=fc-MopTAOck>



**Przykłady**

$2^{-1}$ = $\frac{1}{2}$

$\frac{1}{2}$ = $2^{-1}$

$(\frac{2}{3})^{-1}$ = $\frac{3}{2}$

$( 1\frac{1}{3} )^{-1}$ =( $\frac{4}{3})^{-1}$ = $\frac{3}{4}$

$(-5)^{-1}$ = - $\frac{ 1}{ 5}$

$(-2)^{-3}$ = (- $\frac{1}{2})^{3}$ = - $\frac{1}{8}$

$\left( -2,3\right)^{-1}$ = (- $\frac{23}{10})^{-1}$ = - $\frac{10}{23}$

$3^{-2}$ = $\frac{1}{3^{2}}$ = $\frac{1}{9}$

$3^{-3}$ = $\frac{1}{3^{3}} $ = $\frac{1}{27}$

$(\frac{1}{2})^{-1}$ = $(\frac{2}{1})^{1}$ = $2^{1}$ = 2

$(\frac{1}{2})^{-2}$ = $(\frac{2}{1})^{2}$ = $2^{2}$ = 4

$(\frac{2}{5})^{-2}$ = $(\frac{5}{2})^{2}$ = $\frac{25}{4}$ = 6$\frac{1}{4}$

$( - \frac{1}{8})^{3}$ **=** $ - \frac{1}{512}$ **!**

$( - \frac{1}{8})^{-3}$ = $(-\frac{8}{1})^{3} = - 512$

$\left( -0,1\right)^{-5}$ = (- $\frac{1}{10})^{-5}$ = (- $\frac{10}{1})^{5}$ = -100000

**Ćwiczenia**

$3^{-1}$ =

$\frac{1}{3}$ =

$(\frac{2}{5})^{-1}$ =

$( 2\frac{1}{2} )^{-1}$ =

$(-7)^{-1}$ =

$(-6)^{-3}$ =

$\left( -2,7\right)^{-1}$ =

$9^{-2}$ =

$7^{-3}$ =

$(\frac{1}{5})^{-1}$ =

$(\frac{1}{8})^{-2}$ =

$(\frac{7}{8})^{-2}$ =

$( - \frac{1}{9})^{3}$ **=** $ $

$( - \frac{1}{9})^{-3}$ =

$\left( -0,2\right)^{-5}$ =

**Oblicz:**

$5^{-1}$ + $(\frac{1}{3})^{-2}$ =

$(\frac{1}{2})^{-3}$ - $ (\frac{2}{3})^{-2}$ =

$(\frac{1}{4})^{-2}$ - $ 4^{-2}$ $∙$ 3 =

$ 3^{2}$ + $( -\frac{1}{2})^{-3}$ - $ (\frac{5}{6})^{-2}$ =

  =

|  |
| --- |
| **Pamiętaj!**$a^{0}$ **= 1**$4^{0}$ **= 1**$(-3)^{0}$ **= 1**$-3^{0}$ **= -1** |

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**Sprawdź siebie ☺ (zadania rozwiązujemy na stronie interaktywnej) ☺**

<https://epodreczniki.pl/a/dzialania-na-potegach-o-wykladniku-calkowitym/D9bQywvMQ>