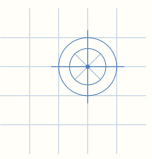


Rational exponents — Negative exponents



Name: _____

Date: _____

Work out each one. A negative exponent means one over the positive one.

① $25^{-3/2} = \frac{1}{125}$

$$\begin{aligned}\sqrt{25} &= 5 \\ 5^3 &= 125 \\ 125 &\rightarrow \frac{1}{125} \\ &= \frac{1}{125}\end{aligned}$$

② $256^{-3/4} = \underline{\hspace{2cm}}$

③ $9^{-3/2} = \underline{\hspace{2cm}}$

④ $8^{-4/3} = \underline{\hspace{2cm}}$

⑤ $81^{-5/4} = \underline{\hspace{2cm}}$

⑥ $64^{-4/3} = \underline{\hspace{2cm}}$

⑦ $16^{-5/4} = \underline{\hspace{2cm}}$

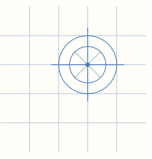
⑧ $27^{-4/3} = \underline{\hspace{2cm}}$

⑨ $27^{-2/3} = \underline{\hspace{2cm}}$

⑩ $9^{-5/2} = \underline{\hspace{2cm}}$



Rational exponents · Negative exponents — Answer key



1. $25^{-3/2} = \frac{1}{125}$

2. $256^{-3/4} = \frac{1}{64}$

3. $9^{-3/2} = \frac{1}{27}$

4. $8^{-4/3} = \frac{1}{16}$

5. $81^{-5/4} = \frac{1}{243}$

6. $64^{-4/3} = \frac{1}{256}$

7. $16^{-5/4} = \frac{1}{32}$

8. $27^{-4/3} = \frac{1}{81}$

9. $27^{-2/3} = \frac{1}{9}$

10. $9^{-5/2} = \frac{1}{243}$