

Pre Primary wing of VSA

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Subject: Maths

Class: 8

Topic: Exponents and Powers

Watch video #6 and solve the following exercise:

EXERCISE 2.1

Use Cordova Smart Class Software on the smart board in class to do Exercise.

1. Express each of the following as a rational number :

(i)
$$(-2)^5$$
 (ii) $\left(-\frac{5}{6}\right)^3$ (iii) $(2)^{-4}$ (iv) $(-4)^{-4}$ (v) $\left(-\frac{4}{5}\right)^{-2}$

- 2. Write the multiplicative inverse of the following :
 - (i) $(7)^{-2}$ (ii) $(-4)^3 \times \frac{1}{2^3}$ (iii) $5^{-2} \div 5^{-4}$ (iv) $\left(\frac{3}{4}\right)^{-2}$
- 3. Show that $\left[\left(\frac{3}{5}\right)^{-1} \left(\frac{1}{3}\right)^{-1}\right]^{-1} = -\frac{3}{4}$.
- 4. By what number should $(-36)^{-1}$ be divided so that the quotient is 9^{-1} ?

5. By what number should (-6)⁻¹ be multiplied so that the product is 27⁻¹?
6. Simplify :

(i)
$$(3^{-1} \times 3^{-2}) \div 3^{-3}$$
 (ii) $(4^2 - 3^2) \times \left(\frac{7}{2}\right)^{-2}$ (iii) $(5^{-1} \times 6^{-1}) \div 10^{-1}$ (iv) $(6^{-1} \div 7^{-1})^2$

7. If a = -2, b = 3, evaluate each of the following :

(i) $25a^{-3}$ (ii) $27a^2b^{-3}$ (iii) $162(-a)^{-1}(b)^{-3}$