



# Rajarshi Gurukul

Sallaghari, Bhaktapur -17, Nepal

Full marks: 10

Name:

Grade:

## Laws of indices

Drag the correct options.

1. Product law of indices: If  $a^m$  and  $a^n$  are any two terms with the same base  $a$  and the powers  $m$  and  $n$  respectively, then

$$a^m \times a^n = \boxed{\phantom{a^m \times a^n}}$$

2. Quotient law of indices: If  $a^m$  and  $a^n$  are any two terms with the same base  $a$  and the powers  $m$  and  $n$  respectively, then

$$a^m \div a^n = \boxed{\phantom{a^m \div a^n}} \text{ if } m > n$$

$$a^m \div a^n = \boxed{\phantom{a^m \div a^n}} \text{ if } m < n$$

3. Power law of indices: If  $(a^m)^n$  is any terms with base  $a$  and the power  $n$  on power  $m$ , then

$$(a^m)^n = \boxed{\phantom{(a^m)^n}}$$

4. Law of zero index: If  $a^0$  is any term with base  $a$  and the power  $0$ , then

$$a^0 = \boxed{\phantom{a^0}}$$

5. Root law of index: If  $\sqrt[n]{a^m}$  is any term with root ' $n$ ' base  $a$  and the power  $m$ , then

$$\sqrt[n]{a^m} = \boxed{\phantom{\sqrt[n]{a^m}}}$$

$$\frac{1}{a^{n-m}}$$

$$a^{m/n}$$

$$a^{m \times n}$$

$$a^{m-n}$$

$$a^{m+n}$$

$$1$$

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