

Index Notation: First Steps

ANSWERS

1

Write this in index form.

$$\begin{array}{cccc} \boxed{3} & \times & \boxed{3} & \times & \boxed{3} & \times & \boxed{3} \\ \textcircled{1} & & \textcircled{2} & & \textcircled{3} & & \textcircled{4} \end{array}$$

How many 3s?

Index form

2

Write this in index form.

$$\begin{array}{ccc} \boxed{5} & \times & \boxed{5} & \times & \boxed{5} \\ \textcircled{1} & & \textcircled{2} & & \textcircled{3} \end{array}$$

How many 5s?

Index form

3

Write this in index form.

$$\begin{array}{ccccc} \boxed{2} & \times & \boxed{2} & \times & \boxed{2} & \times & \boxed{2} & \times & \boxed{2} \\ \textcircled{1} & & \textcircled{2} & & \textcircled{3} & & \textcircled{4} & & \textcircled{5} \end{array}$$

How many 2s?

Index form

4

Write this in index form.

$$\begin{array}{cc} \boxed{7} & \times & \boxed{7} \\ \textcircled{1} & & \textcircled{2} \end{array}$$

How many 7s?

Index form

5

Write this in index form.

$$\begin{array}{cccccc} \boxed{4} & \times & \boxed{4} & \times & \boxed{4} & \times & \boxed{4} & \times & \boxed{4} & \times & \boxed{4} \\ \textcircled{1} & & \textcircled{2} & & \textcircled{3} & & \textcircled{4} & & \textcircled{5} & & \textcircled{6} \end{array}$$

How many 4s?

Index form

6

Write this in index form.

$$\begin{array}{ccc} \boxed{9} & \times & \boxed{9} & \times & \boxed{9} \\ \textcircled{1} & & \textcircled{2} & & \textcircled{3} \end{array}$$

How many 9s?

Index form

7

Kai types this into a calculator.
Write it in index form.

$$\begin{array}{cccc} \boxed{10} & \times & \boxed{10} & \times & \boxed{10} & \times & \boxed{10} \\ \textcircled{1} & & \textcircled{2} & & \textcircled{3} & & \textcircled{4} \end{array}$$

How many 10s?

Index form

8

Ella writes $6 \times 6 \times 6$ as 6×3 .
Write it in index form.

$$\begin{array}{ccc} \boxed{6} & \times & \boxed{6} & \times & \boxed{6} \\ \textcircled{1} & & \textcircled{2} & & \textcircled{3} \end{array}$$

How many 6s?

Index form

Index Notation: First Steps *further practice*

ANSWERS

9

Work out 3^2 .

$$3 \times 3$$

$$3 \times 3 = 9$$

$$3^2 = 9$$

10

Work out 4^2 .

$$4 \times 4$$

$$4 \times 4 = 16$$

$$4^2 = 16$$

11

Work out 2^5 .

$$2 \times 2 \times 2 \times 2 \times 2$$

$$2 \times 2 = 4$$

$$4 \times 2 = 8$$

$$8 \times 2 = 16$$

$$16 \times 2 = 32$$

$$2^5 = 32$$

12

Work out 10^4 .

$$10 \times 10 \times 10 \times 10$$

$$10 \times 10 = 100$$

$$100 \times 10 = 1000$$

$$1000 \times 10 = 10\,000$$

$$10^4 = 10\,000$$

13

Which is bigger, 2^3 or 3^2 ?

$$2^3 \quad 2 \times 2 \times 2 \quad 3^2 \quad 3 \times 3$$

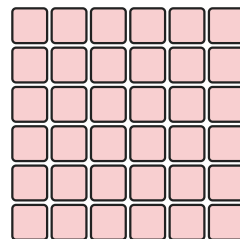
$$2^3 = 8$$

$$3^2 = 9$$

$$\text{Bigger } 3^2$$

14

A small cinema has 6 rows of 6 seats. Write the number of seats in index form. Work it out.



$$\text{Index form } 6^2$$

$$\text{Seats } 36$$

15

Find the missing number.

$$2^3 = 8$$

$$2 \times 2 = 4$$

$$4 \times 2 = 8$$

$$\text{How many 2s? } 3$$

16

Sam says $5^2 = 10$. What has Sam done wrong? Finish the sentences.

$$5 \times 5$$

Sam has worked out $5 \times$

$$2$$

$$5^2 = 5 \times 5 =$$

$$25$$