

Algebra in Action

EXAMPLE 2

- a Write $p \times p \times p \times p$ in index form.
 b Write the answer for part a in words.
 c State which part is the base and which is the index.

- a p is repeated 4 times. $\therefore p \times p \times p \times p = p^4$
 b p^4 means p to the power of 4.
 c The base is p and the index is 4.

6 Complete the following.

- a Write $k \times k \times k \times k \times k$ in index form. $k \times k \times k \times k \times k = k^5$
 b Write the answer from part a in words. _____ means '_____ to the power of _____'.
 c State which number is the base and which is the index. The base is _____ and the index is _____.


7 a Write the following in index form.

- i $w \times w \times w \times w$ ii $a \times a \times a \times a \times a \times a \times a \times a \times a \times a$
 b Write the answer for part a in words.
 c State which part is the base and which is the index.

EXAMPLE 3

Write the following in expanded form.

- a 4^3 b h^5

Expanded form means as a repeated product. 

- a Base is 4 and index is 3. $\therefore 4$ is written out 3 times.
 4^3 in expanded form is $4 \times 4 \times 4$.
 b Base is h and index is 5. $\therefore h$ is written out 5 times.
 h^5 in expanded form is $h \times h \times h \times h \times h$.

8 Complete to write the following in expanded form.

- a $5^6 = _ \times _ \times _ \times _ \times _ \times _$
 b $12^3 = _ \times _ \times _$
 c $j^5 = _ \times _ \times _ \times _ \times _$
 d $v^7 = _ \times _ \times _ \times _ \times _ \times _ \times _$

9 Write the following in expanded form.

- | | | | |
|----------|---------|---------|---------|
| a 1^6 | b 7^8 | c 6^3 | d 2^4 |
| e 10^2 | f 3^2 | g 8^5 | h 4^5 |
| i l^7 | j t^2 | k f^4 | l a^9 |
| m y^5 | n d^5 | o k^3 | p m^8 |



Information on NZ by

Eg GDP rate per capita, Literacy rate, Male/ female population in %, Birth and death rate, Life expectancy, employment, social welfare, retirement age, Gun laws, crime rate, diseases, resources consumption such as Petrol, renewable energy, fossil fuel, clean water, metals, wood, coal, hydroelectric power

Find this information for NewZealand and think about another country which is a poor country

