

Homework 3

1. Write the product as a power. Then find the value.

a) $5 \times 5 \times 5$

b) 12×12

c) $2 \times 2 \times 2 \times 2 \times 2 \times 2$

d) $1 \times 1 \times 1 \times 1 \times 1 \times 1 \times 1 \times 1$

2. Find the value of the power.

a) $9^2 =$ _____

b) $20^0 =$ _____

c) $4^4 =$ _____

d) $15^2 =$ _____

3. Determine whether each number is a perfect square. *If so, justify your answer.*

a) 47

b) 16

c) 121

d) 150

Answer the following questions.

1) How are exponents and base different?

2) Are the values of 6^2 and 2^6 equivalent? *Justify your answer.*

3) Richard said that 7^6 can be written as 7×6 , was he correct? Justify your answer.

4) Nyla said that the value of 5^3 is 125 because:

$$\begin{aligned} &5^3 \\ &= 5 \times 5 \times 5 \\ &= 25 \times 5 \\ &= 125 \end{aligned}$$

Is she correct? Justify your answer.

5) Explain how you would determine the value for 7^3 . Then state the value.
