

1. State the original problem that was simplified to give the following answer:

Answer: $6m^7p \sqrt[3]{4m^3p^2}$

Orig problem:

2. Simplify each . Assume all variables are positive.

a) $\sqrt[3]{121QR^7} \cdot \sqrt[3]{33Q^9R^5}$

b) $\sqrt{81g^7h^4} \cdot \sqrt{49g^6h^8}$

3.

x	0	2	4	5
$f(x)$	3	1	0	-2

The function $f(x)$ is defined by a polynomial. Some values of x and $f(x)$ are shown

in the table. Which of the following must be a factor of $f(x)$?

A. $x - 2$

B. $x - 3$

C. $x - 4$

D. $x - 5$

1. State the original problem that was simplified to give the following answer:

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Handwritten diagram showing the simplification of the original problem to the answer. It shows the original problem as a cube root of a product of terms, with arrows indicating how the terms are grouped to form the simplified answer.

Orig problem:

Handwritten original problem: $\sqrt[3]{864 m^{24} p^5}$

2. Simplify each. Assume all variables are positive.

a) $\sqrt[3]{121QR^7} \cdot \sqrt[3]{33Q^9R^5}$

Handwritten simplification for part a:

$$= \sqrt[3]{11^2 \cdot 11 \cdot 3 \cdot Q^{10} R^{12}}$$

$$= 11Q^3R^4 \sqrt[3]{3Q}$$

b) $\sqrt{81g^7h^4} \cdot \sqrt{49g^6h^8}$

Handwritten simplification for part b:

$$= 9g^3h^2\sqrt{g} \cdot 7g^3h^4$$

$$= 63g^6h^6\sqrt{g}$$

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x	0	2	4	5
$f(x)$	3	1	0	-2

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in the table. Which of the following must be a factor of $f(x)$?

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D. $x-5$

when $x=4$ $y=0$

which mean $x=4$ is an x-int or zero of $f(x)$

this value of x must have come from the factor $x-4$