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Vivian and William are approximating the values of square roots and cube roots.

- a. Vivian approximated the value of $\sqrt{15}$. What is the value of $\sqrt{15}$ to the nearest **whole number**? Show or explain how you got your answer.
- b. William approximated the value of $\sqrt[3]{30}$. What is the value of $\sqrt[3]{30}$ to the nearest whole number? Show or explain how you got your answer.

Vivian approximated the value of $\sqrt{35}$ to be 5.8. William found a closer approximation to the value of $\sqrt{35}$ than Vivian did.

- c. What could be the approximation that William found? Show or explain how you got your answer.

Vivian approximated the value of $\sqrt[3]{1010}$ to be 10.0. William claimed that 10.1 is a closer approximation to the value of $\sqrt[3]{1010}$ than Vivian's approximation.

- d. Whose approximation, Vivian's or William's, is closer to the value of $\sqrt[3]{1010}$? Explain your reasoning.