Possible Solutions

An ice cream cone can hold about 33.5 cm^3 of ice cream. If the radius of the cone is 2 cm, what is the approximate height of the cone?

- The formula for the volume of a cone is $V = \frac{1}{3}\pi r^2 h$. So, $33.5 = \frac{1}{3}\pi 2^2 h$

- Now multiply 33.5 times 3 to undo the 1/3. $100.5 = \pi 2^2 h$

- Next, simplify the exponent. $100.5 = 4\pi h$

- Then, divide by 4π to isolate the h. Remember π is just another number. A student can use the π button on the calculator or 3.14 or 22/7.

- Remember that when the question asks for "approximate" it is appropriate to estimate the answer, so the height is about 8 cm.