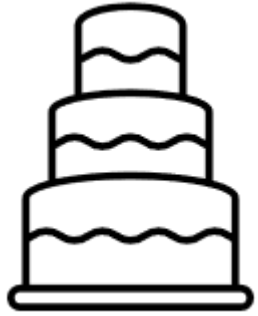
Class Exercise

Jenny owns a bakery and received an order to make a big, round wedding cake that has a diameter of 30 cm and a height of 17 cm. Will Jenny be able to use her large stand mixing bowl that has a maximum volume of 12 017 cm^3?



You may use the following formula:

Volume of a round cake = $\pi \times (\text{radius})^2 \times$ height; where π = 3,142

Answer

ROUNDING OFF

Volume of a round cake $= \pi \times (radius)^2 \times height$

$= 3{,}142 \times (15)^2 \times 17$

$= 12\ 018{,}15\ cm^3$

∴ Jenny would NOT be able to use her mixing stand

[Remember! Mixing bowl has a maximum volume = 12 017 cm^3]

Beware … the incorrect answer!

Volume of a round cake $= \pi \times (15)^2 \times 17 = 12\ 016{,}59\ cm^3$

∴ Jenny WOULD be able to use her mixing stand