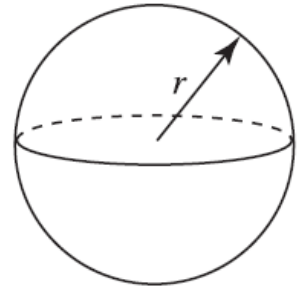


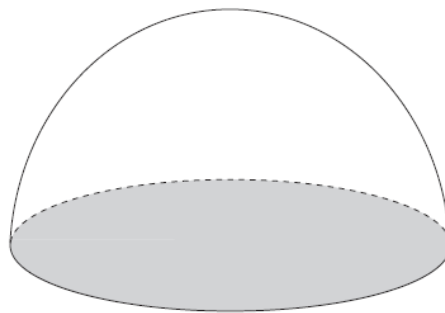
**$m_4 = 4.2$  days to go!**

Volume of sphere =  $\frac{4}{3}\pi r^3$

Surface area of sphere =  $4\pi r^2$



7 The **solid** hemisphere has a diameter of 12 cm.



Mary says the total surface area is  $226 \text{ cm}^2$  to the nearest  $\text{cm}^2$

Martha says the total surface area is  $339 \text{ cm}^2$  to the nearest  $\text{cm}^2$

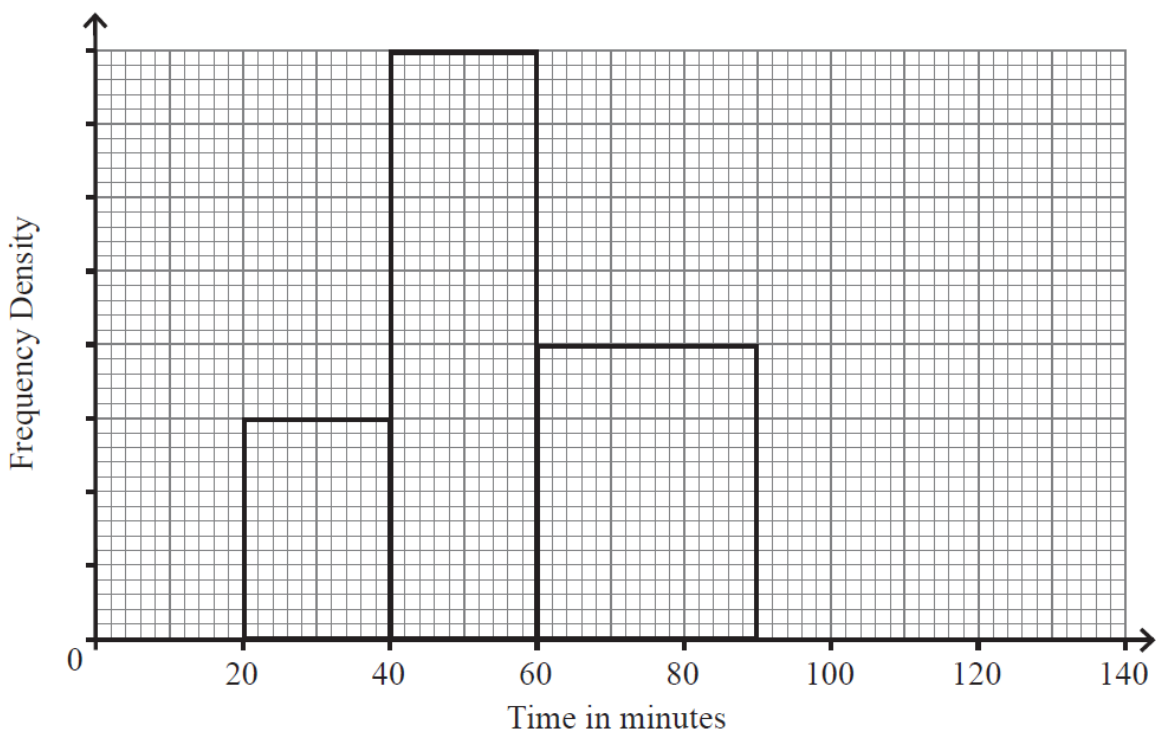
Explain with reasoning who is correct.

Answer \_\_\_\_\_ is correct [4]

20 The table and histogram show information about the length of time 230 pupils spent on social media on a week night.

No pupil spent more than 120 minutes on social media on a week night.

Length of time in minutes, $m$	Frequency
$0 < m \leq 10$	10
$10 < m \leq 20$	25
$20 < m \leq 40$	
$40 < m \leq 60$	80
$60 < m \leq 90$	60
$90 < m \leq 100$	
$100 < m \leq 120$	10



(a) Complete the table and the histogram. [6]

(b) Use the histogram to estimate the median time spent on social media.

Answer \_\_\_\_\_ minutes [2]