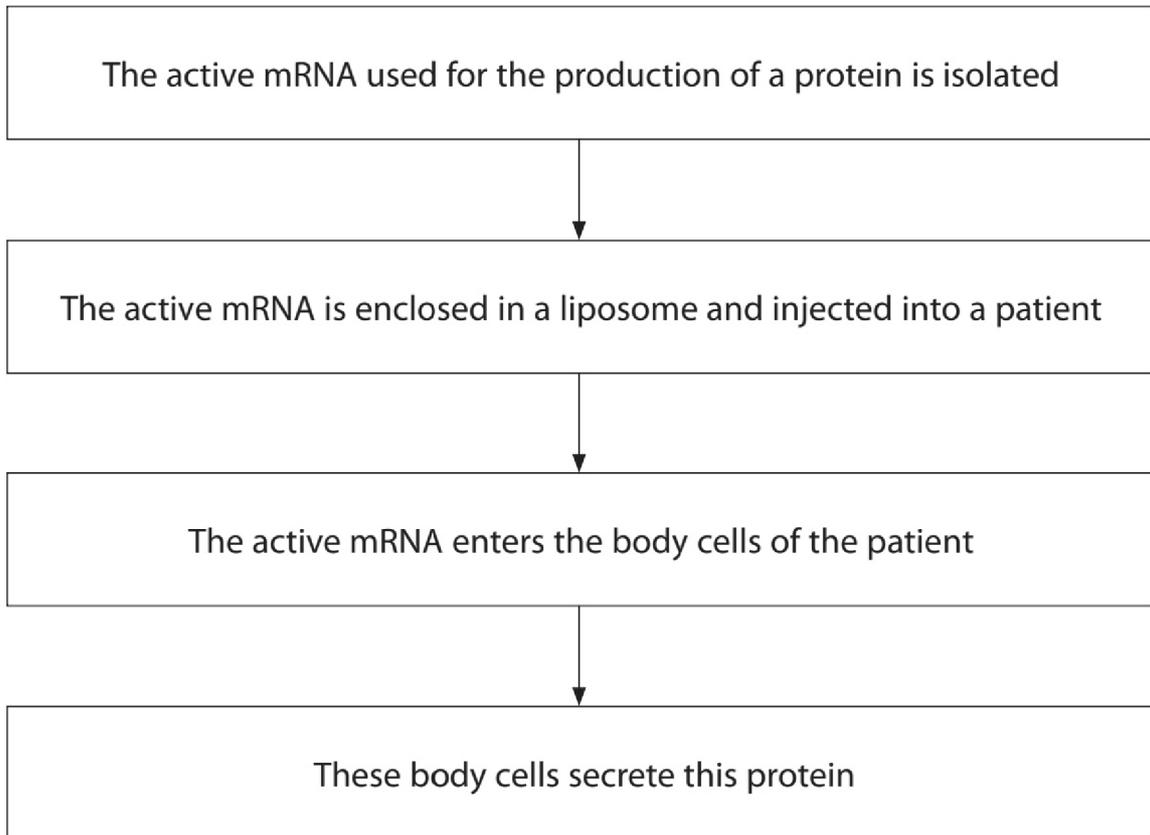


3 A new vaccine has been developed that contains active mRNA.

The flow diagram shows how this vaccine causes body cells to produce a new protein.



(a) The diameter of one spherical liposome was 75 nm.

Calculate the volume of this liposome using the formula:

$$V = \frac{4}{3}\pi r^3$$

Give your answer in standard form.

(2)

Answer ..... nm<sup>3</sup>