

**Exercise 1**

Calc. : ✖

<p>A machine fills bottles with a contact lens cleaning product. From a day's production, a bottle is taken at random. Let <math>V</math> be the random variable which, for each bottle, represents the volume of the product in ml. We assume that <math>V</math> follows the normal distribution with mean <math>\mu = 250</math> ml and standard deviation <math>\sigma = 16</math> ml. <b>Determine</b> the probability that the selected bottle contains between 218 ml and 266 ml of the cleaning product. Illustrate your answer with a sketch of the normal distribution curve.</p>	<p>5 marks</p>
---	----------------