[12-05-17-T7]

Simultaneous linear inequalities

■ **There is a question on the other side, too.**

[1] If Bob types the first 300 words of a document at the rate of 40 words per minute and the rest of the document at 60 words per minute, he takes at least 10 minutes to type the entire document. But, if he types the first 200 words of the document at the rate of 40 words per minute and the rest of the document at 60 words per minute, he takes at most 15 minutes to type the entire document. What is the least number of words in the document? What is the most number of words in the document?

[2] It takes no less than 12 minutes to fill a container with water if the first 400 mL are filled at a rate of 50 $\frac{\text{mL}}{\text{min}}$ and the rest of the container is filled at a rate of 60 $\frac{\text{mL}}{\text{min}}$. However, it takes no more than 13 minutes to fill the same container with water if the first 200 mL are filled at a rate of 50 $\frac{\text{mL}}{\text{min}}$ and the rest of the container is filled at a rate of 60 $\frac{\text{mL}}{\text{min}}$. What is the least capacity and what is the greatest capacity of the container?