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$\alpha, \beta$  are the points in the complex plane such as;

$$\begin{cases} \alpha = (t + t^2i)(2 + i) \\ \beta = (s + si)(3 + 4i) \end{cases}$$

$C_1$  and  $C_2$  are the loci of the points  $\alpha$  and  $\beta$  respectively, when variable  $t$  and  $s$  change from  $-\infty$  to  $\infty$ . What is the area of  $S$  enclosed by  $C_1$  and  $C_2$ ?