7. [13 points] A video is posted on the internet. At 2 pm , the video had 2400 views. By 5 pm , the video had 4000 views. Let $V(t)$ the number of views $t$ hours after noon. Assume that $V(t)$ grows exponentially.
a. [5 points] Find a formula for $V(t)$. You must find this formula algebraically. All your numbers in your formula should be in exact form. Show all your work.

$$
V(t)=
$$

$\qquad$
b. [2 points] How many views did the video have at noon?

Answer: $\qquad$
c. [4 points] How long will it take for the video to have 10 thousand views? Round your answer to the nearest 0.01 hour. Show all your work.

Answer: $\qquad$
d. [2 points] What is the continuous growth rate per hour of $V(t)$ ? Round your answer to the nearest $0.01 \%$.

Answer: $\qquad$

