Name: $\qquad$

1. [ $\mathbf{5} \mathbf{~ p t s}$ ] Let $R$ be the region shown below. Set up the integral that computes the VOLUME as $R$ is rotated around the $x=4$.

## DON'T COMPUTE IT!!!



$$
\text { Volume }=
$$

$\qquad$
2. [ $\mathbf{5} \mathbf{~ p t s ] ~ U s i n g ~ t h e ~ S H E L L ~ M E T H O D , ~ s e t ~ u p ~ t h e ~ i n t e g r a l ~ t h a t ~ c o m p u t e s ~ t h e ~ V O L U M E ~ o f ~ t h e ~ r e g i o n ~}$ bounded by

$$
x=y^{2}-2 y-8, \quad \text { and } \quad x=0
$$

around the $x$-axis.

DON’T COMPUTE IT!!!

Volume $=$ $\qquad$

