13. Express \( \frac{3x + 32}{(x + 4)(6 - x)} \) in partial fractions and hence evaluate

\[
\int_{3}^{4} \frac{3x + 32}{(x + 4)(6 - x)} \, dx.
\]

Give your answer in the form \( \ln \left( \frac{p}{q} \right) \).

**Answer**

\( \ln \frac{486}{49} \)