CH_3COOH half-way point   NaOH

1.00 M   0.250 mol H^+ = 0.250 mol OH^- 1.00 M

500 mL   add 250 mL

0.500 mol - 0.250 mol = $\dfrac{.250 \text{ mol } CH_3COOH}{0.750 \text{ L}}$ = 0.333 M

$\dfrac{0.250 \text{ mol}}{0.750 \text{ L}}$ = 0.333 M CH_3COO^-

Henderson-Hasselbalch Equation

$pH = pK_a$

$$pH = pK_a + \log \frac{[A^-]}{[HA]}$$

$$pH = 4.74 + \log \frac{.333}{.333} = 4.74$$