(1) If $500.00 is invested at 12% interest compounded annually, then give a formula for the total principle, $P(t)$, after $t$ years

\[ P(t) = \text{________________________} \]

(2) What is the principle after ten years?

\[ \text{________________________} \]

(3) How long does it take the principle to become $100,000$?

\[ \text{________________________} \]