$$
\begin{aligned}
2016 \quad & a_1 = 120 \\
2017 \quad & a_2 = 120 + 10 = 130 \\
2018 \quad & a_3 = 120 + 10 * 2 = 140 \\
2019 \quad & a_4 = 120 + 10 * 3 = 150 \\
2020 \quad & a_5 = a_4 * (100\% + 10\%) = a_4 * 1.1 = 165 \\
2021 \quad & a_6 = a_4 * (1.1)^2 \\
& \cdots \\
2025 \quad & a_{10} = a_4 * (1.1)^6 = 150 * (1.1)^6
\end{aligned}
$$

$$
\begin{aligned}
sum &= a_1 + a_2 + \cdots + a_{10} \\
&= \underbrace{a_1 + a_2 + a3}_{\text{前3年}} + \underbrace{a_4 + a_5 + \cdots + a_{10}}_{\text{后7年}} \\
&= \underbrace{120 + 130 + 140}_{\text{前3年}} + \underbrace{150 + 150 * (1.1) + 150 * (1.1)^2 + \cdots + 150 * (1.1)^6}_{\text{后7年}} \\
&= 390 + 150 * \frac{1 - 1.1^7}{1 - 1.1} \\
&= 1813.07565
\end{aligned}
$$

等比数列去和公式$S_n = a_1 + a_2 + a_3 + \cdots + a_n = a_1 \dfrac{1 - q^n}{1 - q}$