

2.79  
6.1

$$\begin{cases} a_1 + a_4 = 27 \\ a_2 \cdot a_3 = 72 \end{cases} \rightarrow \begin{cases} a_1(1+q^3) = 27 \\ a_1^2 q^3 = 72 \end{cases} \rightarrow a_1 = \frac{27}{1+q^3}$$

$$\frac{27^2}{(1+q^3)^2} q^3 = 72 \rightarrow q^3 = A$$

$$729A^2 = 72(A+1)^2$$

$$729A^2 = 72A^2 + 144A + 72$$

$$72A^2 - 585A + 72 = 0$$

$$A = 8 \rightarrow q^3 = 8 \rightarrow q = 2 \rightarrow a_1 = \frac{27}{1+8} = 3 \rightarrow a_n = 3 \cdot 2^{n-1} = 24$$

$$A = \frac{A}{10}$$

3, 6, 12, 24