NO.

Date

$tn^2 - 2tn + t + tn - t - 9n + 9 + t - \frac{3}{2}$
$= tn - 9n + 9 + (t - \frac{3}{2})$;

P162 (A)

1. 1) ① ③ 2) ① ③ ④

2. 1) B 2) D

3. $S_{2n-1} = 60$ $\xrightarrow{\text{...}}$ $50a_1 + \frac{50 \cdot 49}{2} \cdot 2d = 60$

$S_n = 100a_1 + \frac{100 \cdot 99}{2} d = 145$

4. $a_1 = S_1 = t + t - 9 + t - \frac{3}{2} = 3t - \frac{21}{2}$.

$a_n = S_n - S_{n-1} = tn^2 + (t-9)n + (t - \frac{3}{2}) - [t(n-1)^2 + (t-9)(n-1) + (t - \frac{3}{2})]$

$= tn - 9n + tn - 9$

$= 2tn - 9$

$\Rightarrow a_n = \begin{cases} 3t - \frac{21}{2} & n = 1 \\ 2tn - 9 & n > 1 \end{cases}$ $(n \in R^*)$

5. 1° 若 $n = 1$，则 $\frac{S_n}{n} = S_n$

2° 若 $n = k$，则 $\frac{S_k}{k}$ 为等差.

则 $n = k+1$ $\frac{S_{k+1}}{k+1} = \frac{S_k + a_{k+1}}{k+1}$ 为等差.

$\Rightarrow$ 为等差数列

6. $S_{10} = 10 \Rightarrow \frac{10}{2} \cdot (\log_3 a_5 + \log_3 a_6) = 10$ $\log_3 a_5 \cdot a_6 = 2$

$a_5 a_6 = 9$.

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$\frac{1}{3}, \frac{2}{4}, \frac{3}{5}$.

7. $a_{11} = a_1 + (n-1)d = 2 + (n-1)d$

$\Rightarrow 10a_1 + 45d = 2a_1 + 10d$

$\Rightarrow d = -2$

$\Rightarrow a_{16} = -1$

$\therefore S_{15\max} = 225$

8. ~~$2, 1, \frac{1}{2}$~~ $2, 1, -\frac{1}{2}$.

9. 设 $q = 1$ 或 $\frac{\sqrt{5}-1}{2}$ 或 $-\frac{\sqrt{5}+1}{2}$

10. 当 $n=1$ 时, $\frac{1}{a_1} = 2 - \frac{3}{2}$ 成立.

2° 假设 $n=k$ 成立, 则 当 $n=k+1$ 时, 方法成立

11. 1) $1, \frac{4}{3}, \frac{3}{2}, \frac{8}{5}$.

2) $S_n = S_{n-1} + \frac{n-1}{n+1}$.