國立台南女中九十三學年度教師甄試數學科答案卷

1. $-14x^3 - 13x^2 - 14x - 14$	2. $6\sqrt{15}$	3. $\dfrac{2}{21}$; $\dfrac{44}{5}$	4. 1
6. 85	7. $x=1$; $m=3$	8. $2\sqrt{2}$	9. 5005	10. $k > 3$

5.

$$\sum_{n=1}^{2004} \frac{1}{1-a_n} = \frac{1}{1-a_1} + \frac{1}{1-a_2} + \cdots\cdots + \frac{1}{1-a_{2004}}$$

$$= 1 + \frac{a_1}{1-a_1} + 1 + \frac{a_2}{1-a_2} + \cdots\cdots + 1 + \frac{a_{2004}}{1-a_{2004}}$$

$$= 2004 + (\frac{a_1}{1-a_1} + \frac{a_2}{1-a_2} + \cdots\cdots + \frac{a_{2004}}{1-a_{2004}})$$

$$> 2004 + (a_1 + a_2 + \cdots\cdots + a_{2004})$$

$$= 2005$$