

2005 小學數學競賽選拔賽初賽試題

第一試：計算題（考試時間 1 小時）

◎請將答案填入答案卷對應題號的空格內，不須計算過程。答案若為分數請化為最簡分數。本題目卷正反面空白處可為作演算草稿紙。每題 5 分，共 100 分

1. $198 + 2997 + 199 = \underline{3394}$

2. $\frac{1}{8} + \frac{2}{9} + \frac{3}{10} + \frac{7}{8} + \frac{7}{9} + \frac{7}{10} = \underline{3}$

3. $125 \times 885 = \underline{110625}$

4. $\frac{10 \times 9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1}{7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 \times 3 \times 2 \times 1} = \underline{120}$

5. $640000 \div 125 \div 25 \div 32 = \underline{6.4}$

6. $1 \div (2 \div 3) \div (4 \div 5) \div (6 \div 7) \div (8 \div 9) \div 10 = \underline{63/256}$

7. $9 \times 125 \times 127127 - 127 \times 125125 = \underline{127127000}$

8. $9 + 99 + 999 + 9999 + 99999 = \underline{111105}$

9. $1990 + 1991 + \dots + 2005 = \underline{31960}$

10. $1001 + 1003 + 1005 + \dots + 2003 + 2005 = \underline{756009}$

$$11. 255 \times 77 + 255 \times 22 + 255 \times 12 = \underline{28305}$$

$$12. 35 \times 35 \times 3.14 - 25 \times 25 \times 3.14 = \underline{1884}$$

$$13. 20042005 \times 20052004 - 20042004 \times 20052005 = \underline{10000}$$

$$14. \frac{17}{77} + \frac{17}{77} \times 2 + \frac{17}{77} \times 3 + \cdots + \frac{17}{77} \times 10 = \underline{85/7}$$

$$15. \left(249 \frac{13}{67} + 370 \frac{14}{25} \right) \div \left(62 \frac{20}{67} + 92 \frac{16}{25} \right) = \underline{4}$$

$$16. 87 \times \left(\frac{1}{43} - \frac{1}{44} \right) + 43 \times \left(\frac{1}{44} + \frac{1}{87} \right) - 44 \left(\frac{1}{43} - \frac{1}{87} \right) = \underline{1}$$

$$17. \frac{1}{2 + \frac{1}{2 + \frac{1}{2 + \frac{1}{2}}}} = \underline{12/29}$$

$$18. \frac{1}{\frac{1}{1990 \times 1991} + \frac{1}{1991 \times 1992} + \frac{1}{1992 \times 1993} + \cdots + \frac{1}{2004 \times 2005}} = \underline{797990/3}$$

$$19. \underbrace{33 \cdots 3}_{100\text{個}} \underbrace{666 \cdots 6}_{100\text{個}} \div \underbrace{9 \cdots 9}_{100\text{個}} = \underline{\underbrace{33 \cdots 3}_{99\text{個}} 4}$$

$$20. \left(1 \frac{2145}{9999} - \frac{18}{99} \right) \div 3 \frac{981}{9999} = \underline{1/3}$$