

# 2010 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.  $(100 - 30 - 3) \times 30 = ?$

2.  $142857 \times 8 = ?$

3.  $(700 + 701 + 702 + 703 + 704 + 705 + 706 + 707 + 708 + 709 + 710) \div 705 = ?$

4.  $13579 \times 32 \times 81 \div 36 \div 72 = ?$

5.  $\frac{1}{2} + \frac{1}{4} + \frac{1}{12} + \frac{1}{7} + \frac{1}{42} = ?$

6.  $485 \times 9.7 \div 2 - 18.5 \times 37 \div 2 = ?$

7.  $4321 + 5432.1 + 6543.2 + 7654.3 + 8765.4 + 9876.5 + 987.6 + 1098.7 + 2109.8 + 3210.9 = ?$

8.  $1200 + 1206 + 1212 + \dots + 2004 + 2010 = ?$

9.  $26 \times 26 \times 224466 - 24 \times 24 \times 224466 = ?$

10.  $21 + 201 + 210 + 2001 + 2100 + 20001 + 21000 + \dots + \overbrace{20 \dots 01}^{50 \text{個} 0} + \overbrace{210 \dots 0}^{50 \text{個} 0} = ?$

11.  $\frac{1.21 + 1.21 \times 2 + 1.21 \times 3 + 1.21 \times 4}{0.99 \times 9.9 \times 99 + 0.99 \times 9.9} = ?$

12.  $\frac{56}{84} \times 42 \times 320032 + \frac{26}{78} \times 21 \times 640064 = ?$

(請翻面繼續作答)

$$13. \frac{1+3+5+7+\dots+297+299}{2010 \div 67 + 2010 \times 67} = ?$$

$$14. 2010 \div 20102010 \frac{2010}{2100} = ?$$

$$15. 2\frac{10}{55} + 4\frac{9}{55} + 8\frac{8}{55} + 16\frac{7}{55} + \dots + 1024\frac{1}{55} = ?$$

$$16. \frac{46230}{64320} \times \frac{92460}{128640} \times \frac{192960}{138690} = ?$$

$$17. \frac{7 \times 14 \times 21 + 11 \times 22 \times 33 + 13 \times 26 \times 39}{7 \times 7 \times 7 \times 7 \times 11 \times 13 + 7 \times 11 \times 11 \times 11 \times 11 \times 13 + 7 \times 11 \times 13 \times 13 \times 13 \times 13} = ?$$

$$18. 1\frac{1}{2} \times 1\frac{1}{3} \times 1\frac{1}{4} \times 1\frac{1}{5} \times 1\frac{1}{6} \times 1\frac{1}{7} - 1\frac{1}{2} \times 1\frac{1}{3} \times 1\frac{1}{4} \times 1\frac{1}{5} \times 1\frac{1}{6} + 1\frac{1}{2} \times 1\frac{1}{3} \times 1\frac{1}{4} \times 1\frac{1}{5} - 1\frac{1}{2} \times 1\frac{1}{3} \times 1\frac{1}{4} = ?$$

$$19. \frac{1}{1 + \frac{2}{1 + \frac{3}{1 + \frac{4}{1 + \frac{4}{1 + \frac{3}{1 + \frac{2}{1 + \frac{1}{1}}}}}}}} = ?$$

$$20. \frac{3.99 \times 7.98 \times 7.98 \times 7.98 + 3.99 \times 3.99 \times 7.98 \times 7.98 + 3.99 \times 3.99 \times 3.99 \times 7.98}{(3.99 \times 3.99 + 1) \times 4.99 \times 2.99 + 1} = ?$$