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2012 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. $2325 + 7418 + 7675 - 2318 = ?$

2. $14 \times 25 \times 28 \times 50 = ?$

3. $1\frac{1}{2012} \times 1\frac{1}{2013} \times 1\frac{1}{2014} \times 1\frac{1}{2015} \times 1\frac{1}{2016} \times 1\frac{1}{2017} \times 1\frac{1}{2018} \times 1\frac{1}{2019} = ?$

4. $(125+60) \times (16+36) = ?$

5. $101 \times 334 + 3737 \times 18 = ?$

6. $2012 - 2002 + 1992 - 1982 + 1972 - 1962 + \cdots + 32 - 22 + 12 - 2 = ?$

7. $\frac{12 + 24 + 48 + 96 + 192}{22 + 44 + 88 + 176 + 352} = ?$

8. $8 + 98 + 998 + 9998 + 99998 + 999998 + 9999998 + 99999998 + 999999998 = ?$

9. $1111 + 1212 + 1313 + 1414 + \cdots + 9898 + 9999 = ?$

10. $20.12 \times 214 \div 5.03 + 2.012 \times 28900 \div 50.3 = ?$

11. $(2012 + 2013 + 2014 + \cdots + 2209 + 2210) \div 2111 = ?$

12. $12.34 + 23.41 + 34.12 + 41.23 = ?$

(請翻面繼續作答)

13. $2012 \times 40244024 - 4024 \times 20122012 = ?$

14. $\frac{10101 + 20202 + 30303 + 40404 + 50505 + 60606 + 70707 + 80808 + 90909}{10101 + 20202 + 40404 + 80808 + 161616 + 323232} = ?$

15. $\frac{1}{5 + \frac{1}{4 + \frac{1}{3 + \frac{1}{2}}}} = ?$

16. $\frac{1}{24} + \frac{1}{40} + \frac{1}{60} + \frac{1}{84} + \frac{1}{112} + \frac{1}{144} + \frac{1}{180} + \frac{1}{220} + \frac{1}{264} = ?$

17. $\left(55 + \frac{9}{7} - \frac{2}{3}\right) \times \left(\frac{1}{8} + \frac{7}{9} + \frac{1}{13} + \frac{13}{7}\right) - \left(\frac{1}{8} + \frac{7}{9} - \frac{1}{13} + \frac{13}{7}\right) \times 52$
 $+ \left(\frac{1}{8} + \frac{7}{9} + \frac{1}{13} + \frac{13}{7}\right) \times \left(\frac{2}{3} - \frac{9}{7} - 3\right) = ?$

18. $\frac{\left(\frac{10}{7} + \frac{10}{11} + \frac{10}{13}\right) \div (7 \times 11 + 11 \times 13 + 13 \times 7)}{12 \times 12 - 7 \times 7 + 5 \times 5} = ?$

19. $\left(1 + \frac{2012}{45}\right) + \left(22 + \frac{2012}{45} \times 2\right) + \left(333 + \frac{2012}{45} \times 3\right) + \dots + \left(999999999 + \frac{2012}{45} \times 9\right) = ?$

20. $\frac{2011}{2012} + \frac{20119}{20120} + \frac{201199}{201200} + \dots + \frac{\overbrace{20119 \dots 9}^{2011 \text{ 個 } 9}}{\underbrace{20120 \dots 0}_{2011 \text{ 個 } 0}}$ 的整數部分是多少？