5年级第1讲 分数计算与比较大小超越篇

1. ★★★★

  计算：$8\frac{12}{13} \times \frac{2}{19} + 19\frac{2}{13} \times 13\frac{1}{19}$.

2. ★★★

  计算：$\dfrac{363636}{363363} \times \dfrac{636636}{636363}$.

3. ★★★

计算：

$$\left[\left(\frac{1}{2}+\frac{1}{4}+\frac{1}{6}+\frac{1}{8}\right)-\left(\frac{1}{3}+\frac{1}{6}+\frac{1}{9}+\frac{1}{12}\right)\right]\div\left[\left(\frac{1}{4}+\frac{1}{8}+\frac{1}{12}+\frac{1}{16}\right)-\left(\frac{1}{5}+\frac{1}{10}+\frac{1}{15}+\frac{1}{20}\right)\right].$$

4. ★★★★

计算：

$$\left(\frac{1}{2}+\frac{1}{3}+\cdots+\frac{1}{10}\right)+\left(\frac{2}{3}+\frac{2}{4}+\cdots+\frac{2}{10}\right)+\left(\frac{3}{4}+\frac{3}{5}+\cdots+\frac{3}{10}\right)+\cdots+\left(\frac{8}{9}+\frac{8}{10}\right)+\frac{9}{10}.$$

5. ★★★

已知 $A = \dfrac{2008}{2007} + \dfrac{2007}{2008}$，$B = \dfrac{2006}{2005} + \dfrac{2005}{2006}$.试比较 A，B 的大小.

6. ★★★★

$A = \left(\dfrac{1}{2001} + \dfrac{1}{2003} \right) \times 1001$，$B = \left(\dfrac{1}{2005} + \dfrac{1}{2007} \right) \times 1003$，

$C = \left(\dfrac{1}{2009} + \dfrac{1}{2011} \right) \times 1005$， 请将 A，B，C 按从大到小的顺序排列起来.

7. ★★★★

计算：

$$\left(\frac{2+3+4}{1} - \frac{3+4+5}{2} + \frac{4+5+6}{3} - \frac{5+6+7}{4} + \cdots + \frac{10+11+12}{9} - \frac{11+12+13}{10}\right) \div$$
$$\left(1 - \frac{1}{2} + \frac{1}{3} - \frac{1}{4} + \cdots + \frac{1}{9} - \frac{1}{10}\right).$$

8. ★★★★

计算：

$$(1 \times 2 + 2 \times 3) \times \left(\frac{1}{1 \times 2} + \frac{1}{2 \times 3}\right) + (2 \times 3 + 3 \times 4) \times \left(\frac{1}{2 \times 3} + \frac{1}{3 \times 4}\right) + \cdots +$$
$$(19 \times 20 + 20 \times 21) \times \left(\frac{1}{19 \times 20} + \frac{1}{20 \times 21}\right).$$