

Answer the questions in the spaces provided. If you run out of room for an answer, continue on the back of the page.

Name and section: \_\_\_\_\_

Instructor's name: \_\_\_\_\_

1.  $(1 + 0.2\% + 2\% + 20\%) \times (0.2\% + 2\% + 20\% + 200\%) - (1 + 0.2\% + 2\% + 20\% + 200\%) \times (0.2\% + 2\% + 20\%) =$  .

2.

$$2016 \times \frac{3\frac{3}{4} \times 1.3 + 3 \div 2\frac{2}{3}}{(1 + 3 + 5 + 7 + 9) \times 20 + 4} =$$

3.

$$\frac{\frac{1}{1} - \frac{1}{3}}{\frac{1}{1} \times \frac{1}{2} \times \frac{1}{3}} + \frac{\frac{1}{2} - \frac{1}{4}}{\frac{1}{2} \times \frac{1}{3} \times \frac{1}{4}} + \frac{\frac{1}{3} - \frac{1}{5}}{\frac{1}{3} \times \frac{1}{4} \times \frac{1}{5}} + \dots + \frac{\frac{1}{2014} - \frac{1}{2016}}{\frac{1}{2014} \times \frac{1}{2015} \times \frac{1}{2016}} =$$

4. 观察下列一组数，找规律，求  $a = 92$ ,  $b = 205$ .

1, 2, 6, 15, 31, 56,  $a$ , 141,  $b$ , 286

$2 - 1 = 1, 6 - 2 = 4, 15 - 6 = 9, 31 - 15 = 16, 56 - 31 = 25$

1, 4, 9, 16, 25, 36, 49, 64, 81...

5.

$$\frac{1}{\frac{1}{2016} + \frac{1}{2015} + \frac{1}{2014} + \frac{1}{2013} + \frac{1}{2012} + \frac{1}{2011}}$$

的整数部分是: .

6. 若  $x + y = \frac{5}{6}$ ,  $m + n = \frac{3}{5}$ , 求  $xm + yn + xn + ym = \frac{1}{2}$

$$xm + yn + xn + ym = x(m + n) + y(n + m) = (x + y)(m + n)$$