Exercise 2

Исходные данные:

a - 2002

b - 09

c - 20

Задание 1

1) $\frac{2002}{9 \cdot 20} = \frac{2002}{180} = 11 + \frac{22}{180} =$

$= 11 + \frac{1}{\frac{180}{22}} = 11 + \frac{1}{8 + \frac{4}{22}} =$

$= 11 + \frac{1}{8 + \frac{1}{\frac{22}{4}}} = 11 + \frac{1}{8 + \frac{1}{5 + \frac{2}{4}}} =$

$= 11 + \frac{1}{8 + \frac{1}{2 + \frac{1}{2}}}$

$\frac{2002}{180} = [11; 8, 5, 2]$

2) $2002 = (11) \cdot 180 + 22$

$180 = (8) \cdot 22 + 4$

$22 = (5) \cdot 4 + 2$

$4 = 2 \cdot 2$

$[11; 8, 5, 2]$

Задание 2

$$\sqrt{180} = 13 + (\sqrt{180} - 13) =$$

$$= 13 + \frac{1}{\frac{1}{\sqrt{180} - 13}} = 13 + \frac{1}{\frac{\sqrt{180} + 13}{11}} =$$

$$= 13 + \frac{1}{2 + \frac{\sqrt{180} - 9}{11}} = 13 + \frac{1}{2 + \frac{1}{\frac{11}{\sqrt{180} - 9}}} =$$

$$= 13 + \frac{1}{2 + \frac{1}{\frac{11(\sqrt{180} + 9)}{99}}} =$$

$$= 13 + \frac{1}{2 + \frac{1}{2 + \frac{\sqrt{180} - 9}{9}}} =$$

$$= 13 + \frac{1}{2 + \frac{1}{2 + \frac{1}{\frac{9}{\sqrt{180} - 9}}}} =$$

$$= 13 + \frac{1}{2 + \frac{1}{2 + \frac{1}{\frac{9(\sqrt{180} + 9)}{99}}}} =$$

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