

## Exercise 2.

N1.

$$\begin{aligned}
 1) \quad \frac{2001}{11 \cdot 3} &= \frac{2001}{33} = \frac{667}{11} = 60 + \frac{7}{11} = 60 + \frac{1}{1 + \frac{4}{11}} = 60 + \frac{1}{1 + \frac{1}{\left(\frac{11}{4}\right)}} = \\
 &= 60 + \frac{1}{1 + \frac{1}{1 + \frac{3}{4}}} = 60 + \frac{1}{1 + \frac{1}{1 + \frac{1}{\left(\frac{4}{3}\right)}}} = 60 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{3}}}} = \\
 &= [60; 1; 1; 1; 3]
 \end{aligned}$$

2)  $\frac{667}{11}$

$$667 = 60 \cdot 11 + 7$$

$$11 = 1 \cdot 7 + 4$$

$$7 = 1 \cdot 4 + 3$$

$$4 = 1 \cdot 3 + 1$$

$$3 = 3 \cdot 1$$

Ombem:

$$[60; 1; 1; 1; 3]$$

N2.

$$\begin{aligned}
 \sqrt{11 \cdot 3} &= \sqrt{33} = 5 + (\sqrt{33} - 5) = 5 + \frac{1}{\left(\frac{1}{\sqrt{33} - 5}\right)} = 5 + \frac{1}{\left(\frac{\sqrt{33} + 5}{8}\right)} = \\
 &= 5 + \frac{1}{1 + \frac{\sqrt{33} - 3}{8}} = 5 + \frac{1}{1 + \frac{1}{\left(\frac{8}{\sqrt{33} - 3}\right)}} = 5 + \frac{1}{1 + \frac{8(\sqrt{33} + 3)}{24}} = \\
 &= 5 + \frac{1}{1 + \frac{1}{\frac{\sqrt{33}}{3}}} = [5; \overline{1; 1}]
 \end{aligned}$$