2) $\text{Teog}(780, 48) = 12$.

$48 = 36 \cdot 1 + 12 \Rightarrow 12 = 48 - 36 \cdot 1$

$780 = 48 \cdot 3 + 36 \Rightarrow 36 = 780 - 48 \cdot 3$

$12 = 48 - 36 \cdot 1 = 48$.

Dz.

1) $\lambda - ?$ $\quad a = 036275$

$\lambda^2 < a < (\lambda + 1)^2$

$\lambda = \frac{(36275 + \frac{36275}{36215})}{2} = 18108$

$\lambda = \frac{(18108 + \frac{36275}{18108})}{2} = 9054.$

$\lambda = \frac{9054 + \frac{36215}{9054}}{2} = \frac{9054 + 3}{2} = 4528$

$\lambda = \frac{4528 + \frac{36215}{4528}}{2} = 2267.$

$\lambda = \frac{2267 + \frac{36215}{2267}}{2} = 1141.$

$$\lambda = \frac{1141 + \frac{36215}{1141}}{2} = 586$$

$$\lambda = \frac{586 + \frac{36215}{586}}{2} = 323$$

$$\lambda = \frac{323 + \frac{36215}{323}}{2} = 217.$$

$$\lambda = \frac{217 + \frac{36215}{217}}{2} = 191$$

$$\lambda = \frac{191 + \frac{36215}{191}}{2} = 190.$$

$$\lambda = \frac{190 + \frac{36215}{190}}{2} = 190.$$

$\lambda = 190$

2) $2002 = a$; $\sqrt{a} = 44.$

1) $a = 2 \cdot 1001$, $a = 2$, $k = 1, a = 1001$

2) $a = 2 \cdot 500 + 1, k = 1.$

3) $a = 3 \cdot 333 + 2, k = 2.$

4) $a = 4 \cdot 250 + 1, k = 1.$

5) $a = 5 \cdot 200 + 1, k = 1.$

Зад.

~~6) $a = 6 \cdot 166 + 5$, $k = 5$~~

~~7) $a = 7 \cdot 143$, $\alpha_1 = 7$, $i = 2$, $a = 143$~~

~~8) $a = 143$ $8 \cdot 17 + 7$, α_2 $k = 7$.~~

~~2) $a =$~~

2, $2002 = a$ $\sqrt{a} = 44$

1) $a = 2 \cdot 1001$, $\alpha_0 = 2$, $i = 1$, $a = 1001$.

2) $a = 3 \cdot 333 + 2$, $k = 2$.

3) $a = 5 \cdot 200 + 1$, $k = 1$.

4) $a = 7 \cdot 143$, $\alpha_1 = 7$, $i = 2$, $a = 143$

5) $a = 11 \cdot 13$, $\alpha_2 = 11$, $i = 3$, $a = 13$.

6) $a = 13 \cdot 1$, $\alpha_3 = 11$, $i = 4$, $a = 1$.

$a = 2002 = 2 \cdot 7 \cdot 11 \cdot 13$.

~~[illegible]~~

3) $43x + 76y = 2002$.

$2 \cdot \log(43; 76) = 1$

$43x_0 + 76y_0 = 1$.

$x_0 = 23$

$y_0 = -13$

$x_1 = x_0 \cdot \frac{c}{2} = 46046$.

$y_1 = -13 \cdot 2002 = -26026$.

$x = 46046 + 76k$

$y = -26026 - 43k$

4. I $3x(+_7) 112_7 + 346_7$

I) $3_7 = 3_{10}$.

$112_7 = 1 \cdot 7^2 + 1 \cdot 7 + 2 = 58_{10}$

$346_7 = 3 \cdot 7^2 + 4 \cdot 7 + 6 = 181_{10}$.

$3x + 58 = 181$.

$3x = 123$

$x = 41_{10} = 56_7$

41_{10}	7
-35	5
6	

II) $-\begin{array}{r} 346 \\ 112. \\ \hline 234 \end{array}$

$3x = 234$

$x = 56$.