$3s + 5l = 4 \quad | \; s,l \in \mathbb{Z}$

$s = \frac{1}{3}(4 - 5l)$

$\Rightarrow l = 3s + 2$

$\Rightarrow 3s + 3 \cdot 5s + 10 = 4$

$3(s + 5s) = -6$

$\Rightarrow (k, l) = (-2 - 5s, 3s + 2)$

2 20-16:05

$b = c \cdot a \qquad a \mid b$

$3 \mid 6 \wedge 6 \mid 18$

$5 \mid (7 + 15)$

$9 \mid 18 \wedge 3 \mid 27$

$3 \mid (n^2 + 1)$

$n = 3k \quad | \Rightarrow \quad n^2 + 1 = 3 \cdot 3 \cdot k^2 + 1 \Rightarrow$ nie dz

$n = 3k + 1 \quad | \Rightarrow \quad = (3k+1)^2 + 1 = 3 \cdot 3k^2 + 3 \cdot 2k + 2$

$n = 3k + 2 \quad | \Rightarrow \quad = (3k+2)^2 = 3 \cdot 3k^2 + 3 \cdot 2 \cdot 2k + 5 \Rightarrow$ nie dz

2 20-16:30

$n^2 - 1 = (n-1)(n+1)$

$\Rightarrow$

$n^2 + 1 - (n^2 - 1)$ je dělitel $n+1$

2

$\Rightarrow n + 1 = 2 \Rightarrow n = 1$

2 20-16:40

$17 : 4 = ?$

$17 = 4 \cdot 4 + 1$

$a = q \cdot m + r \qquad 0 \le r < m$

$a = 3m + 1 \qquad b = t m + 1$

$a \cdot b = (3m+1)(tm+1) = (3t m^2 + (3+t)m) + 1$

$a \cdot b = m \cdot (\;\;) + r \cdot q$

2 20-16:43

12	64
2	2
3	4
4	8
6	16
12	32
	64

$\gcd(12, 64) = 4$

(a, b)

$[a, b]$

$[12, 64] = 3 \cdot 64$

2 20-16:51

$\gcd(12, 64) = ?$

$64 = 5 \cdot 12 + 4$

$12 = 3 \cdot 4 + 0$

$d \mid 64 \wedge d \mid 12$

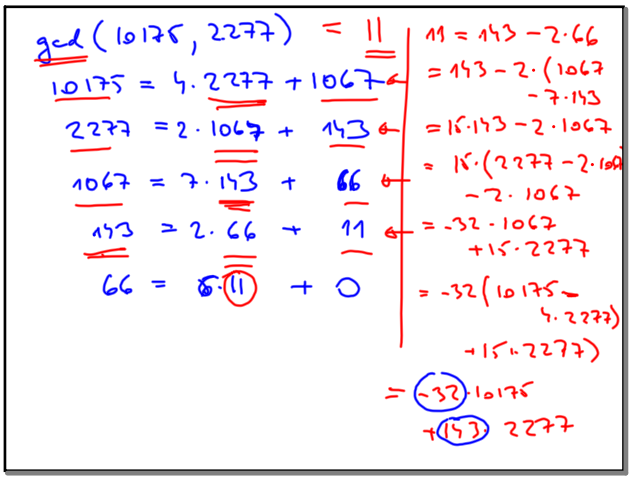
$\Rightarrow d \mid 4$

$\vdots$

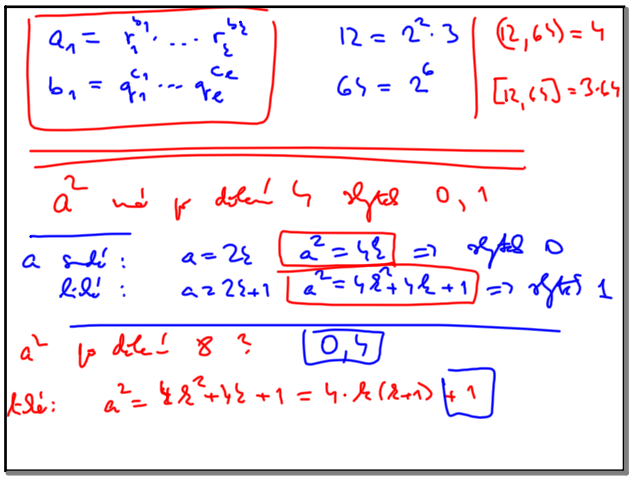
$\Rightarrow d \mid 4$

$4 = 64 - 5 \cdot 12$

2 20-17:03



2 20-17:08



2 20-17:30