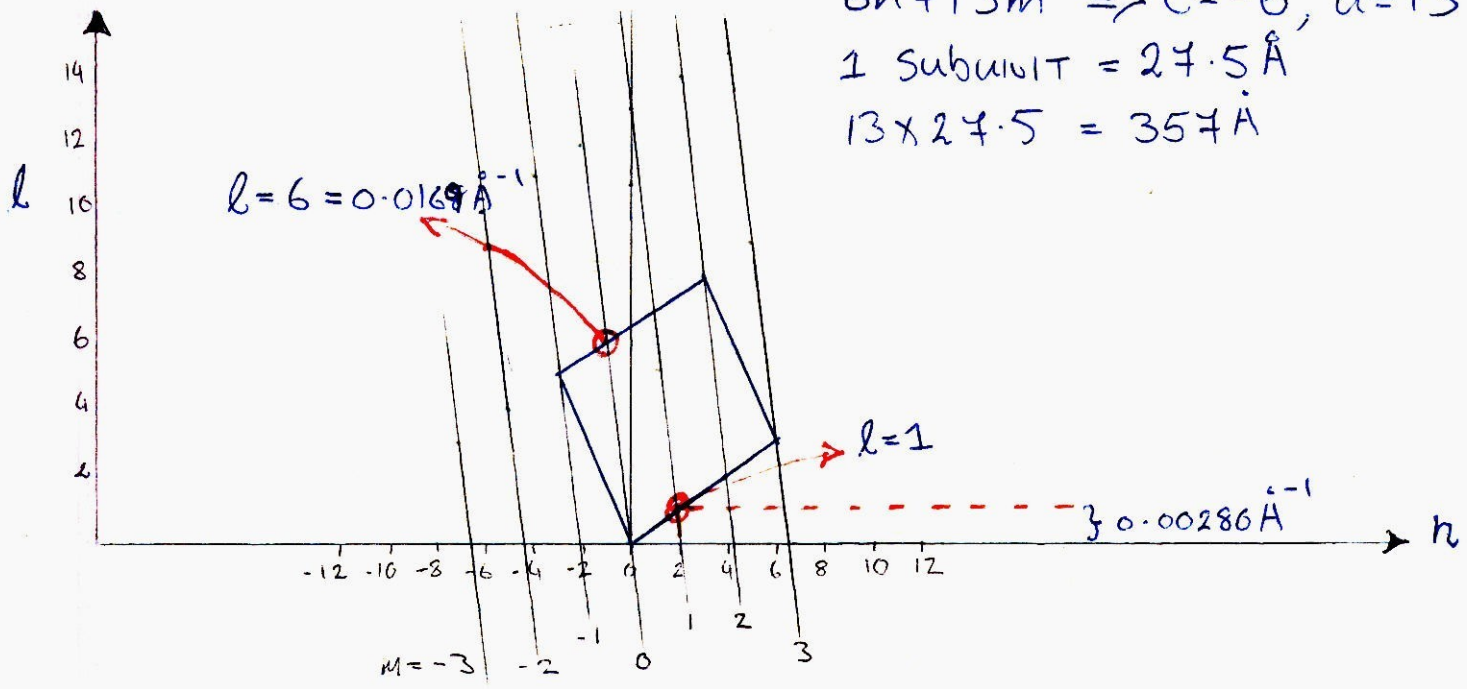
$-6n+13m \Rightarrow t=-6,\ u=13$

1 subunit = 27.5 Å

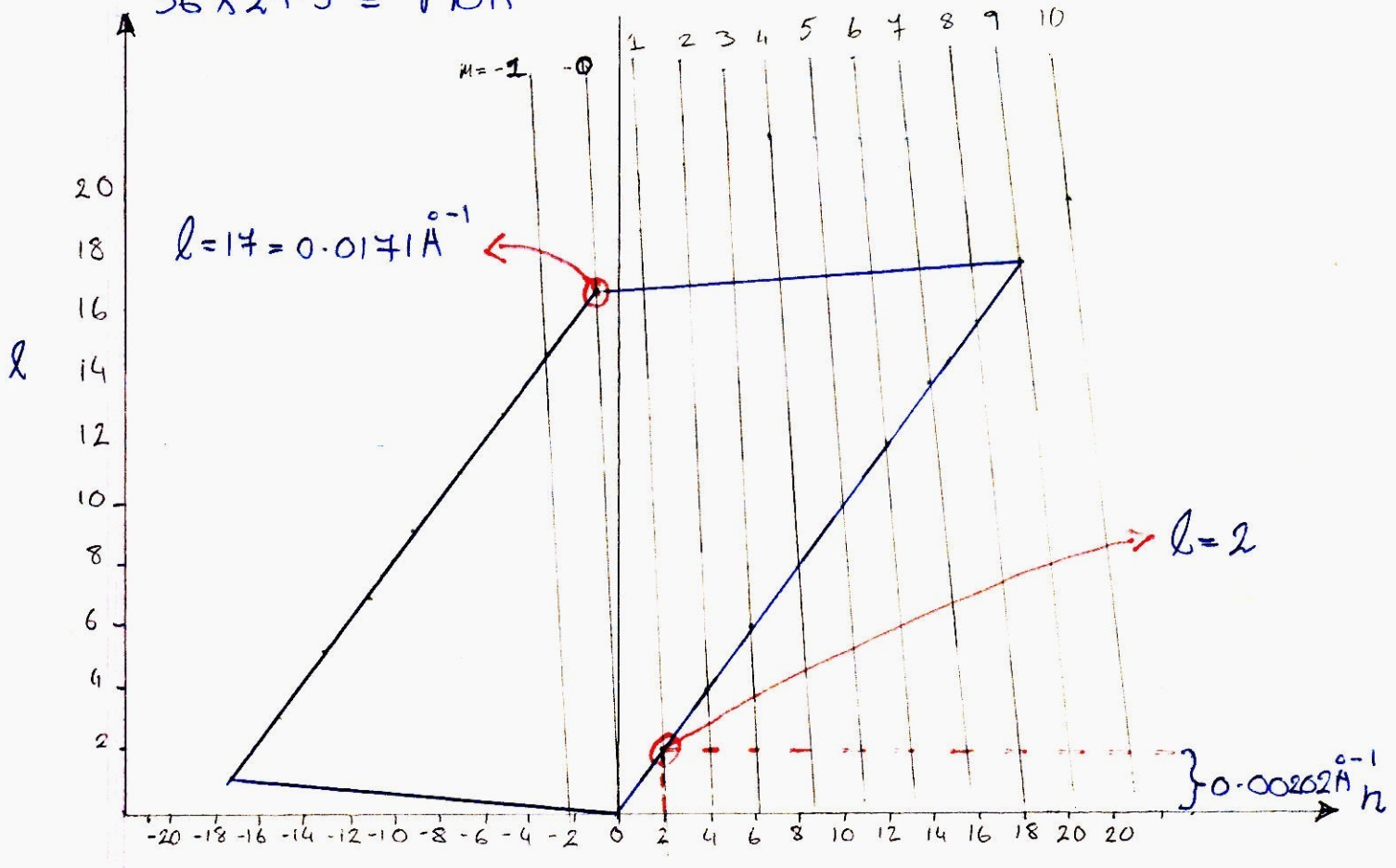
$13 \times 27.5 = 357$ Å



$-17n+36m \Rightarrow t=-17,\ u=36$

1 subunit = 27.5 Å

$36 \times 27.5 = 990$ Å



6n + 13m

l	h	K	n	Z
1	1	0	2	0.00278
2	2	0	4	0.00556
3	3	0	6	0.00834
5	-1	1	-3	0.0141
6	0	1	-1	0.0169
7	1	1	1	0.0197

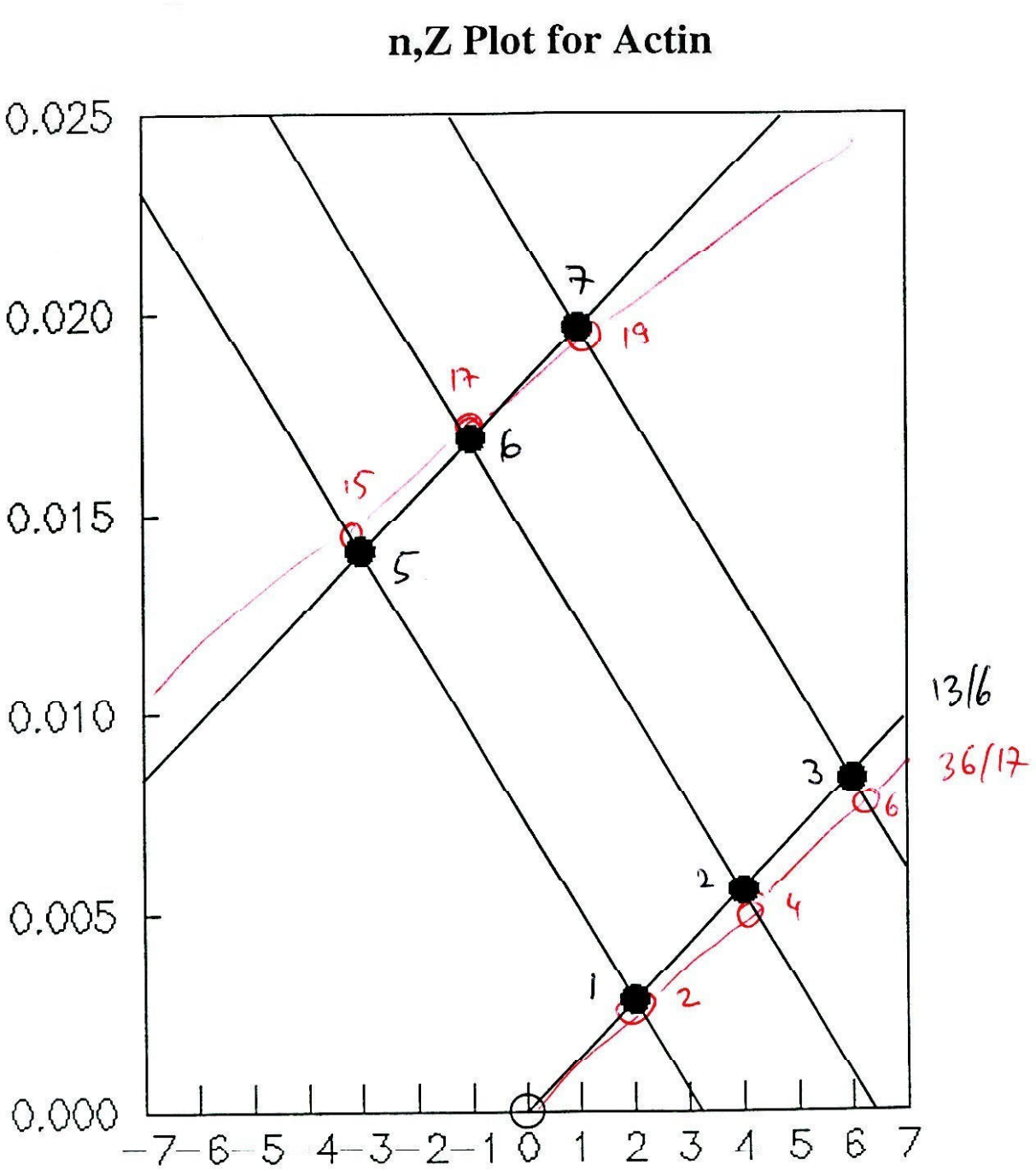
17n + 36m

l	h	K	n	Z
2	1	0	2	0.00202
4	2	0	4	0.00404
6	3	0	6	0.00606
15	-1	1	-3	0.0151
17	0	1	-1	0.0171
19	1	1	1	0.0191

Symmetry for 36/17 is -170°. For 13/6 symmetry this is:

360 ÷ 13 = 27.69

27.69 * -6 = -166.15°



Interpretation: Although the fractional indexing produces widely different indices, the expected diffraction spots and layer lines have moved only little, as can be expected from the similar geometry.

So we learn from this that the indexing and applied Fourier-Bessel reconstruction of helices is not stable under small perturbations of geometry, but the 2D diffraction pattern (and also the obtained 3D reconstruction after applying FB theory) is!