$$3\cdot 2\cdot 2\,(-\Delta_2+\Delta_1+1)+3-2\Delta_1 \quad , \Delta_1=\{1,2\}$$

$$=\underbrace{12\,(-\Delta_2+\Delta_1+1)+3-2\Delta_1}_{(*)} \qquad \Delta_2=\{1,2,3,4\}$$

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| $\Delta_1$ | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| $\Delta_2$ | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| (*) | $\boxed{13}$ | 1 | −11 | $\boxed{-23}$ | 23 | $\boxed{11}$ | −1 | −13 |
| | 3 | | | 1 | | 2 | | |

$\to 12\cdot(-1+1+1)+3-2\cdot 1 = 12\cdot 1+3-2 = 12+1=13$

$\to 12\cdot(-2+1+1)+3-2\cdot 1 = 12\cdot 0+3-2 = 3-2 = 1$

$\to 12\cdot(-3+1+1)+3-2\cdot 1 = 12\cdot(-1)+3-2 = -12+1 = -11$

$\to 12\cdot(-4+1+1)+3-2\cdot 1 = 12\cdot(-2)+3-2 = -24+1 = -23$

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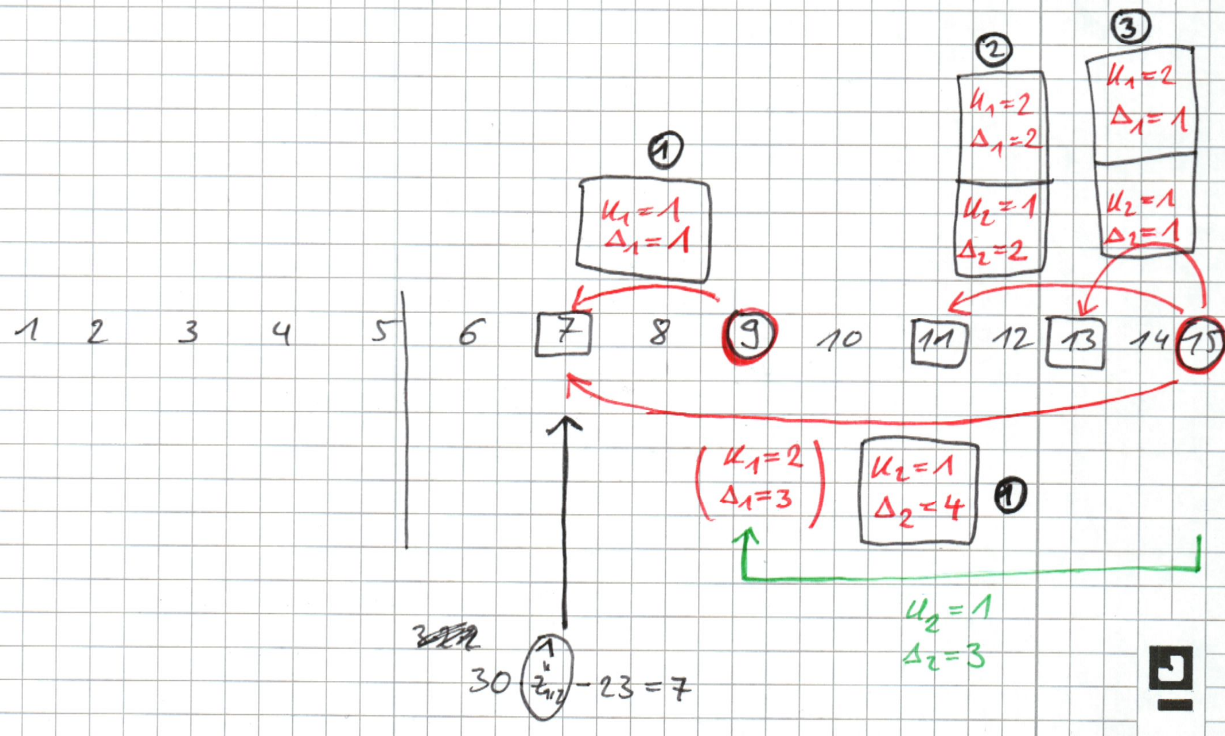
$\to 12\cdot(-1+2+1)+3-2\cdot 2 = 12\cdot 2+3-4 = 24-1 = 23$

$\to 12\cdot(-2+2+1)+3-2\cdot 2 = 12\cdot 1+3-4 = 12-1 = 11$

$\to 12\cdot(-3+2+1)+3-2\cdot 2 = 12\cdot 0+3-4 = 0-1 = -1$

$\to 12\cdot(-4+2+1)+3-2\cdot 2 = 12\cdot(-1)+3-4 = -12-1 = -13$



$\Rightarrow$ For which cases, do we have:

$$\boxed{u_1 - (-\Delta_2 + \Delta_1 + 1) \cdot x_2 = (2x_2 + 1) \cdot m \quad , \quad m \in \mathbb{Z}}$$

?

$$k_1 - (-\Delta_2 + \Delta_1 + 1) \cdot 2 = 5 \cdot m$$

$$\frac{u_1 - (-\Delta_2 + \Delta_1 + 1) \cdot 2}{5} = m \quad ?$$

$$m = \frac{u_1 - (-\Delta_2 + \Delta_1 + 1) x_2}{2x_2 + 1} = \frac{u_1 + (-\Delta_1 + \Delta_2 - 1) x_2}{2x_2 + 1}$$

$$= \frac{(-\Delta_1 + \Delta_2 - 1) x_2 + u_1}{2x_2 + 1}$$

fulfield, if:

$$(-\Delta_1 + \Delta_2 - 1) x_2 + u_1 = (2x_2 + 1)(2\gamma + 1) \quad , \quad \gamma \in \mathbb{N}$$

$$= 2 \cdot (2x_2\gamma + x_2 + \gamma) + 1$$

$$(-\Delta_1 + \Delta_2 - 1) x_2 + u_1 = 2^2 x_2 \gamma + 2x_2 + 2\gamma + 1$$

$$(-\Delta_1 + \Delta_2 - 1) x_2 - 2^2 x_2 \gamma - 2x_2 = 2\gamma + 1 - u_1$$

$$x_2 (-\Delta_1 + \Delta_2 - 1) - 2^2\gamma - 2) = 2\gamma + 1 - u_1$$

$$(-\Delta_1 + \Delta_2 - 1) x_2 = 2\gamma + 1 - u_1 + 2^2 x_2 \gamma - 2x_2$$

$$\boxed{(-\Delta_1 + \Delta_2 - 1) = \frac{(2\gamma + 1 - u_1)}{x_2} + 2^2\gamma - 2}$$