Example browser

Context On->Off

Determine the inverse z transform of the following expression:

$$\frac{2}{z - \frac{1}{4} \cdot z^{-1}}$$

, ... $x[n]$ is absolutely summable.

Start interactive calculation.

(c) Jan Rocnik 2012

Worksheet

Problem (Isac, [Inverse, Z Transform, SignalProcessing])

X z = 2 / (z - 1 / 4 * (1 / z))

?X' z = 2 / (z * (z - 1 / 4 * (1 / z)))

Problem (Isac, [partial fraction, rational, simplification])

2 / (z * (z - 1 / 4 * (1 / z)))

8 / (-1 + 4 * z ^ 2)

solve (-1 + 4 * z ^ 2 = 0, z)

-1 + 4 * z ^ 2 = 0

z = (0 + sqrt (0 - 4 * 4 * -1)) / (2 * 4) |z = (0 - sqrt (0 - 4 * 4 * -1)) / (2 * 4)

z = 1 / 2 | z = -1 / 2