



$t\{2,1,-2\} + \{x,y,z\} = \{4,-5,3\}$ and $\{2,1,-2\} \cdot \{x,y,z\} = 0$



Input :

$$t \{2, 1, -2\} + \{x, y, z\} = \{4, -5, 3\} \wedge (2, 1, -2) \cdot (x, y, z) = 0$$




Result:

$$\{2t + x, t + y, z - 2t\} = \{4, -5, 3\} \wedge 2x + y - 2z = 0$$


Solution:

$$t = -\frac{1}{3}, \quad x = \frac{14}{3}, \quad y = -\frac{14}{3}, \quad z = \frac{7}{3}$$



{t {2, 1, -2}, {x, y, z}} where $t = -1/3$, $x = 14/3$, $y = -14/3$, $z = 7/3$ 

Input interpretation :

{t {2, 1, -2}, {x, y, z}} where $t = -\frac{1}{3}$, $x = \frac{14}{3}$, $y = -\frac{14}{3}$, $z = \frac{7}{3}$ 

Result:

$\left\{ \left\{ -\frac{2}{3}, -\frac{1}{3}, \frac{2}{3} \right\}, \left\{ \frac{14}{3}, -\frac{14}{3}, \frac{7}{3} \right\} \right\}$ 