

Add the first two equations to eliminate  $z$ :  $2x + y = 10$

Add the third equation,  $2x - y = 2$ , to this:  $4x = 12$

Solve for  $x$ :  $x = 3$

Substitute into the third equation:  $2(3) - y = 2$ , or  $6 - y = 2$ , so  $y = 4$

Substitute into the second equation:  $3 + z = 4$ , so  $z = 1$