1 are

Calculates groebner basis of

- $xy + (-1)$
- $xz + (-1)$

.

$\overline{S(xy + (-1), xz + (-1))} = y + (-1)z$.
Not enough. Appends

- $y + (-1)z$

.

$\overline{S(xy + (-1), y + (-1)z)} = 0$.
$\overline{S(xz + (-1), y + (-1)z)} = 0$.
Enough for groebner basis. Result is

- $xy + (-1)$
- $xz + (-1)$
- $y + (-1)z$

. ■ Minimalizes groebner basis

- $xy + (-1)$
- $xz + (-1)$
- $y + (-1)z$

.

$xy + (-1)$ is removed by $y + (-1)z$.
Minimalized groebner basis is

- $xz + (-1)$
- $y + (-1)z$

. ■

Reduce groebner basis

- $xz + (-1)$
- $y + (-1)z$

.

Reducing: $\overline{xz + (-1)} = xz + (-1)$.
Reducing: $\overline{y + (-1)z} = y + (-1)z$.
Reduced groebner basis is

- $y + (-1)z$
- $xz + (-1)$

. ■