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Pre-defined

> $DiffRing := OreTools\text{:-}SetOreRing(x, \text{'}differential\text{'});$

$$DiffRing := UnivariateOreRing(x, differential) \tag{1}$$

> $ShiftRing := OreTools\text{:-}SetOreRing(x, \text{'}shift\text{'});$

$$ShiftRing := UnivariateOreRing(x, shift) \tag{2}$$

> $QShiftRing := OreTools\text{:-}SetOreRing([x, q], \text{'}qshift\text{'});$

$$QShiftRing := UnivariateOreRing(x, qshift) \tag{3}$$

> $OreTools\text{:-}Properties\text{:-}Getdelta(DiffRing)$

$$(p, var) \rightarrow \frac{\partial}{\partial var} p \tag{4}$$

User-defined

> $DeltaRing := OreTools\text{:-}SetOreRing(x, \text{'}Delta\text{'},$
> $\text{'}sigma\text{'} = ((p, x) \rightarrow eval(p, x = x + 1)),$
> $\text{'}sigma\_inverse\text{'} = ((p, x) \rightarrow eval(p, x = x - 1)),$
> $\text{'}delta\text{'} = ((p, x) \rightarrow eval(p, x = x + 1) - p),$
> $\text{'}theta1\text{'} = 0);$

$$DeltaRing := UnivariateOreRing(x, \Delta) \tag{5}$$

> $OreTools\text{:-}Properties\text{:-}Getdelta(DeltaRing)$

$$(p, x) \rightarrow p \Big|_{x = x + 1} - p \tag{6}$$

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