

Examples of Ice Cream

```
> PI := (1-2*t+t^2)/(1-t)^3;
> P := PI + Porb(5, [2,4], -1);
> IsgorensteinSymmetric(P);
true -1
> S!P;
1 + t + 2*t^2 + 3*t^3 + 5*t^4 + 7*t^5 + 9*t^6 + 12*t^7
  + 15*t^8 + 19*t^9 + 23*t^10 + 0(t^11)
> P*Denom([1,2,3,4,5]);
t^14 - t^8 - t^6 + 1
  // P is Hilbert series of S(6,8) in PP(1,2,3,4,5)).

// =====
> Porb(7, [2,6], -1);
(-t^6 - t^4 - t^2)/(t^9 - 2*t^8 + t^7 - t^2 + 2*t - 1)
> Porb(7, [2,6], -1) eq (t^2+t^4+t^6)/Denom([1,1,7]);
true

// =====
> Porb(7, [3,5], -1);
(-t^5 + t^4 - t^3)/(t^9 - 2*t^8 + t^7 - t^2 + 2*t - 1)
> Porb(7, [3,5], -1) eq (t^3-t^4+t^5)/Denom([1,1,7]);
true

> PI := (1-2*t+t^2)/(1-t)^3;
> P := PI + Porb(7, [3,5], -1);
> S!P;
1 + t + t^2 + 2*t^3 + 2*t^4 + 3*t^5 + 4*t^6 + 5*t^7 + 6*t^8
  + 7*t^9 + 9*t^10 + 10*t^11 + 0(t^12)
> P*Denom([1,3,5,7]);
-t^15 + 1 // This predicts S(15) in PP(1,3,5,7)

// =====
> Porb(7, [4,4], -1);
(t^6 + t^5 - t^4 + t^3 + t^2)/(t^9 - 2*t^8 + t^7 - t^2 + 2*t - 1)
> Porb(7, [4,4], -1) eq (-t^2-t^3+t^4-t^5-t^6)/Denom([1,1,7]);
true
```