

#4.6 Question 4

```

>
#(A)
>
> with(Groebner):
> with(PolynomialIdeals):
>
> I:=<x*z-y^2,x^3-y*z>;
      2 3
      I := <x z - y , x  - y z>

> J:=<x^2*y-z^2>;
      2 2
      J := <x y - z >

> K:=Intersect(I,J);
      3 2 2 2 2
      K := <y x - z x, y x - z y>

>
> map(f->simplify(f/(x^2*y-z^2)),K);
      <x, y>

>
#(C)
>
> Intersect( <x,y> , <x*z-y^2,x^3-y*z,z^2-x^2*y> );
      3 2
      <x - y z, y - x z>

> Simplify(I);
      3 2
      <x - y z, y - x z>

#So they are indeed equal.

```