

```
> restart:with( plots): with(student):  
Warning, the name changecoords has been redefined
```

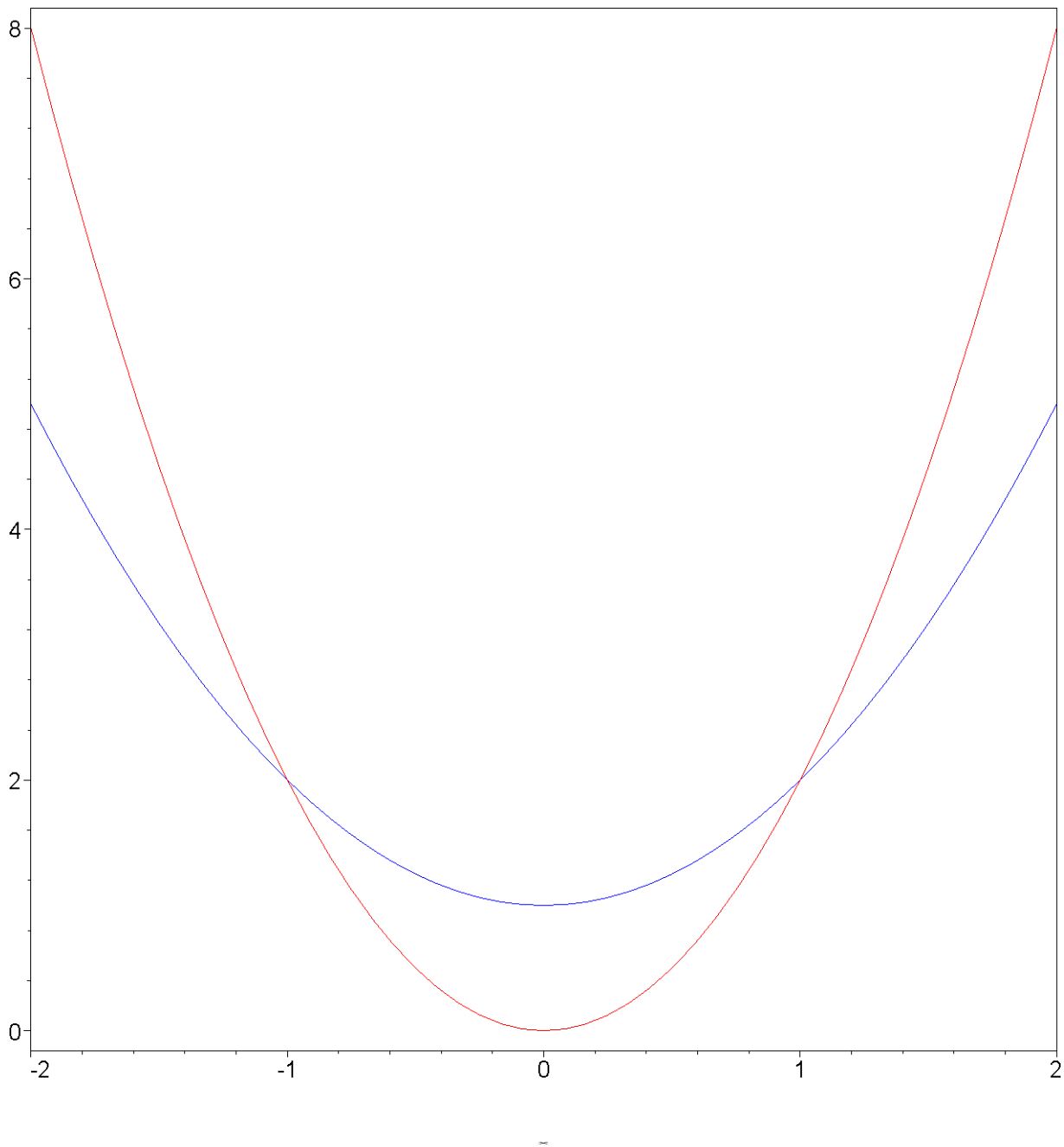
```
>
```

```
> g1:= x -> 2*x^2:G1:=plot(g1(x), x = -2..2,color=red,axes=boxed):
```

the next step is to find the roots of some hande calculaations

```
> g2:= x -> 1 +x^2:G2:=plot(g2(x), x =  
-2..2,color=blue,axes=boxed):
```

```
> display(G1,G2);
```

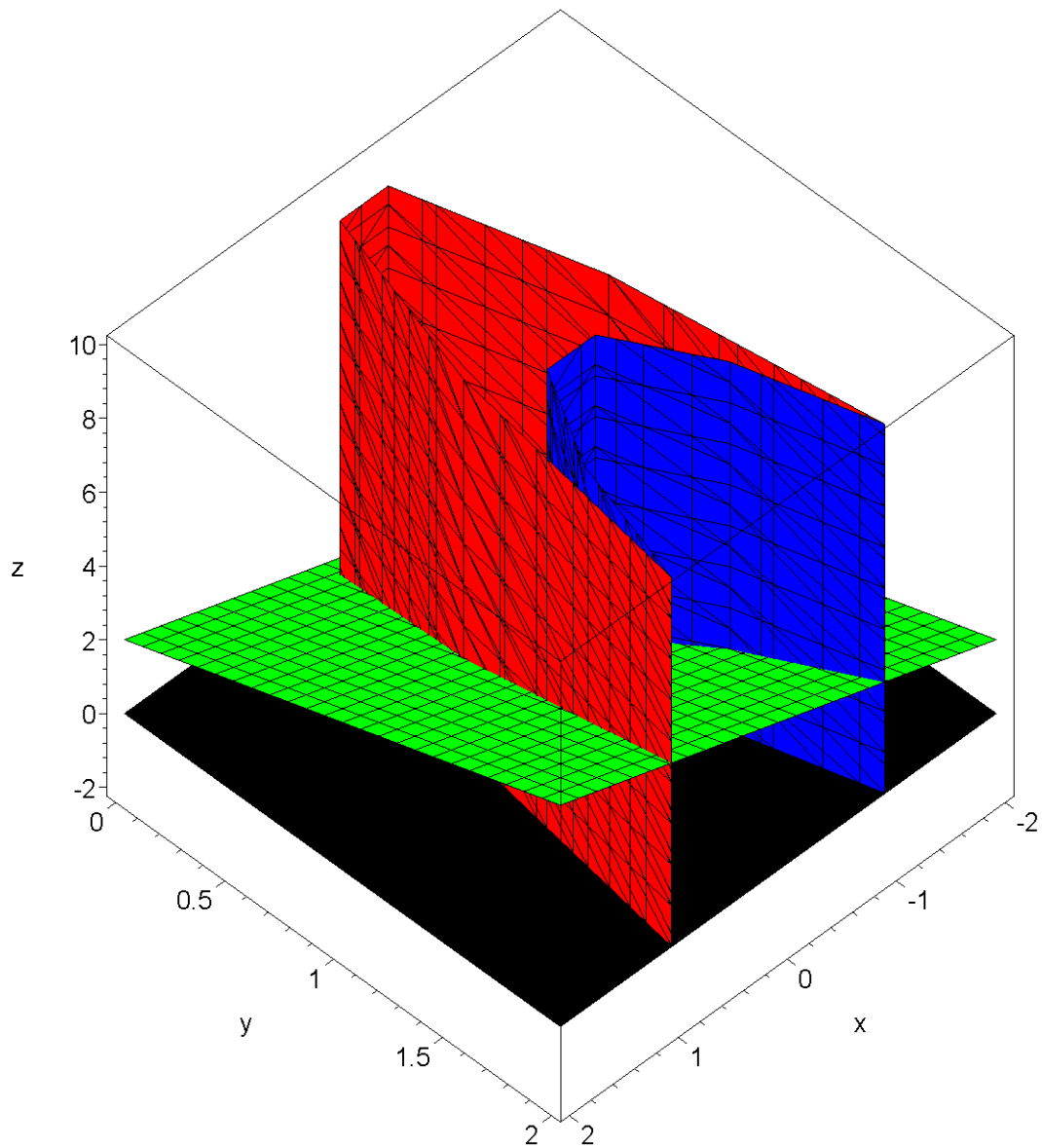


```
> F:= ( x,y) -> x + 2*y;
```

```

[                                     F := (x, y) → x + 2 y
[ > F1:=plot3d(F(x,y), x = -3..3,y=-2 .. 2, color=green,axes=boxed):
[ > display3d(G1,G2,F1);
[ Error, (in display3d) cannot display 2-D and 3-D plots together
[
[ > restart:with( plots): with(student):
[ Warning, the name changecoords has been redefined
[
[ > G1:=implicitplot3d(y-2*x^2=0, x =
[   -2..2,y=0..2,z=0..10,color=red,axes=boxed):
[ > G2:=implicitplot3d(y-x^2 -1=0, x =
[   -2..2,y=0..2,z=0..10,color=blue,axes=boxed):
[ > G3:=plot3d(x + 2*y, x= -2..
[   2,y=0..2,color=green,axes=boxed):Bot:=implicitplot3d(z=0,x=-2
[   ..2,y=0..2,z=0..1,color=black,axes=boxed):
[ > display3d(G1,G2,G3,Bot);

```



```
> g:= (x,y) -> x+2*y;
```

```
g := (x, y) → x + 2 y
```

```
>
```

```
> Int( Int(g(x,y), y=2*x^2 .. 1+x^2),x=-1..1) =int( int(g(x,y),
y=2*x^2 .. 1+x^2),x=-1..1);evalf(%);
```

$$\int_{-1}^1 \int_{2x^2}^{1+x^2} x + 2y \, dy \, dx = \frac{32}{15}$$

```
2.133333333 = 2.133333333
```

```
>
```

[>