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 calculations

> 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) \rightarrow x + 2y

> 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);
\[ g := (x, y) \rightarrow x + 2y; \]

\[ g := (x, y) \rightarrow x + 2y \]

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

\[ 2.133333333 = 2.133333333 \]