

```
> restart;
```

```
> F1:=x->x^2-2; F2:=x->x^2-1; F3:=x->x^2-1/2;  
F4:=x->x^2; F5:=x->x^2+1/2; F6:=x->x^2+1;  
F7:=x->x^2+2;
```

$$F1 := x \rightarrow x^2 - 2$$

$$F2 := x \rightarrow x^2 - 1$$

$$F3 := x \rightarrow x^2 - \frac{1}{2}$$

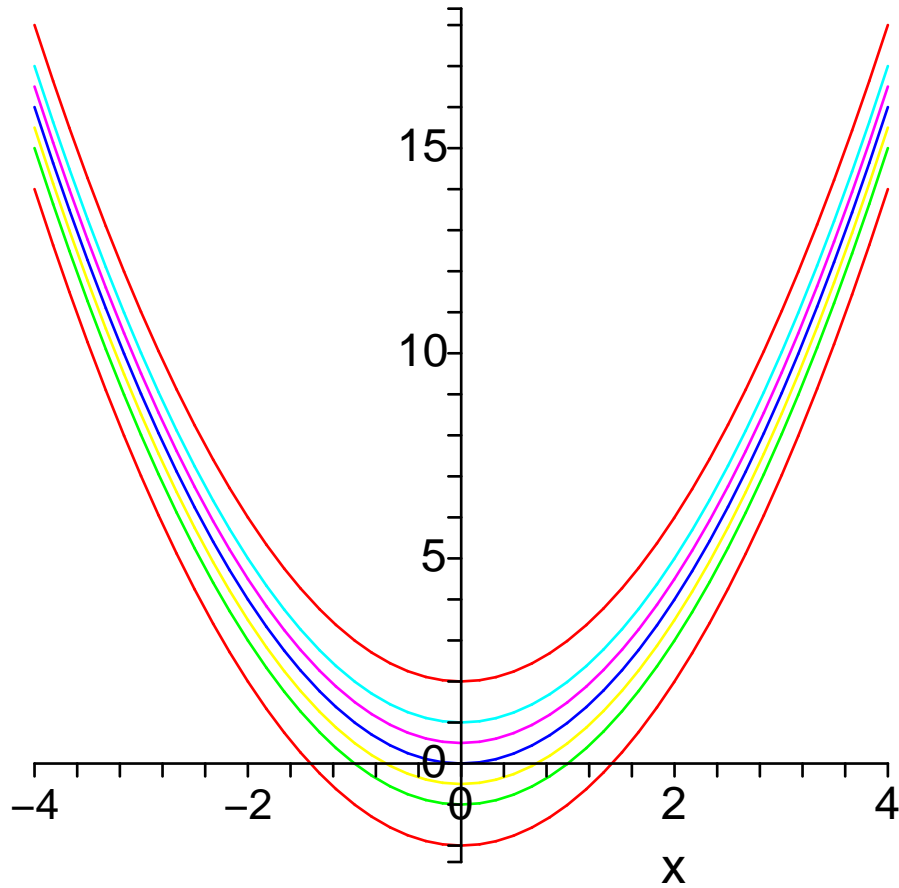
$$F4 := x \rightarrow x^2$$

$$F5 := x \rightarrow x^2 + \frac{1}{2}$$

$$F6 := x \rightarrow x^2 + 1$$

$$F7 := x \rightarrow x^2 + 2$$

```
> plot([F1(x),F2(x),F3(x),F4(x),F5(x),F6(x),F7(x)],  
x=-4..4);
```



```
> G1:=x->(x-2)^2; G2:=x->(x-1)^2; G3:=x->(x-1/2)^2;
G4:=x->(x-0)^2; G5:=x->(x+1/2)^2; G6:=x->(x+1)^2;
G7:=x->(x+2)^2;
```

$$G1 := x \rightarrow (x - 2)^2$$

$$G2 := x \rightarrow (x - 1)^2$$

$$G3 := x \rightarrow \left(x - \frac{1}{2}\right)^2$$

$$G4 := x \rightarrow x^2$$

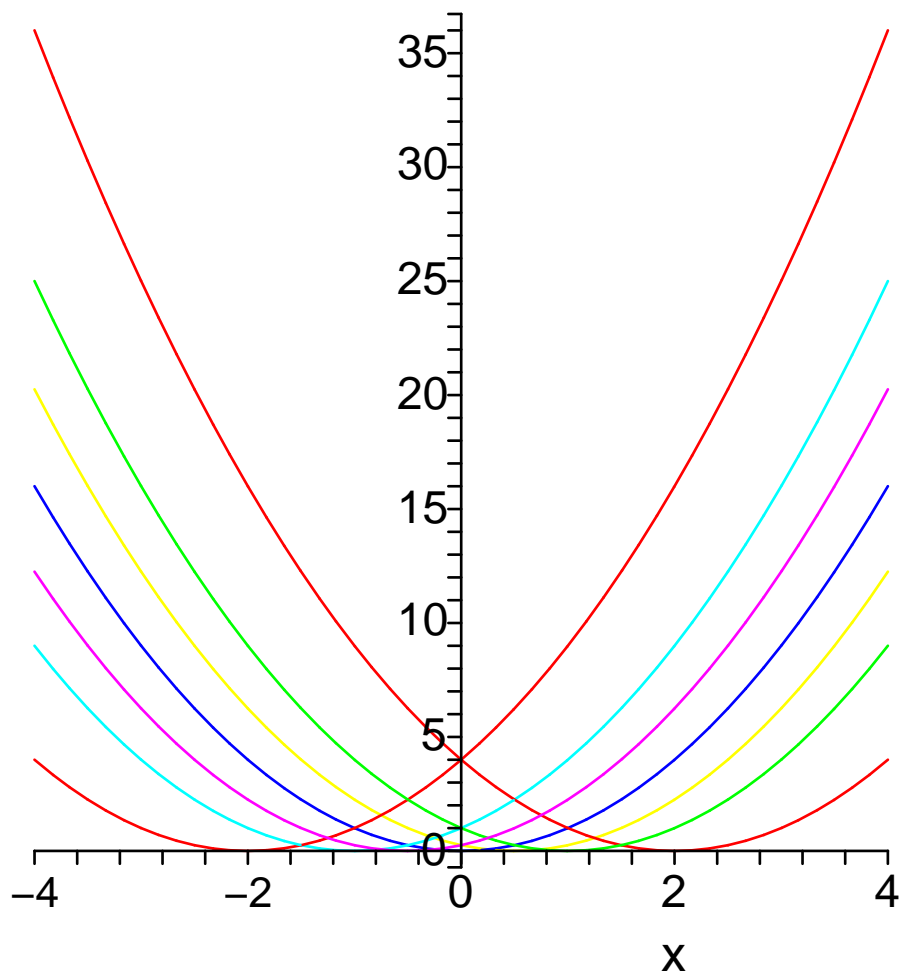
$$G5 := x \rightarrow \left(x + \frac{1}{2}\right)^2$$

$$G6 := x \rightarrow (x + 1)^2$$

$$G7 := x \rightarrow (x + 2)^2$$

```
> plot([G1(x),G2(x),G3(x),G4(x),G5(x),G6(x),G7(x)],
```

x=-4..4);



**> H1:=x->-2*x^2; H2:=x->-1*x^2; H3:=x->(-1/2)*x^2;
H4:=x->(-1/4)*x^2; H5:=x->0*x^2; H6:=x->(1/4)*x^2;
H7:=x->(1/2)*x^2; H8:=x->1*x^2; H9:=x->2*x^2;**

$$H1 := x \rightarrow -2 x^2$$

$$H2 := x \rightarrow -x^2$$

$$H3 := x \rightarrow -\frac{1}{2} x^2$$

$$H4 := x \rightarrow -\frac{1}{4} x^2$$

$$H5 := x \rightarrow 0 x^2$$

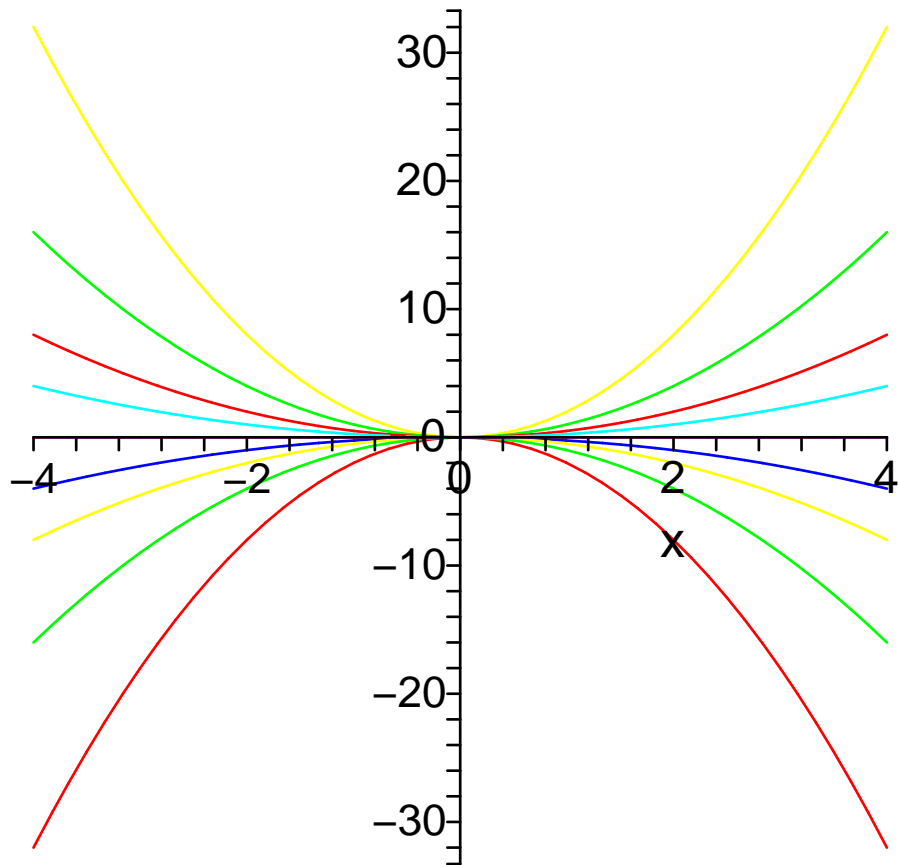
$$H6 := x \rightarrow \frac{1}{4} x^2$$

$$H7 := x \rightarrow \frac{1}{2} x^2$$

$$H8 := x \rightarrow x^2$$

$$H9 := x \rightarrow 2x^2$$

```
> plot([H1(x), H2(x), H3(x), H4(x), H5(x),  
H6(x), H7(x), H8(x), H9(x)], x=-4..4);
```



>