math_graph

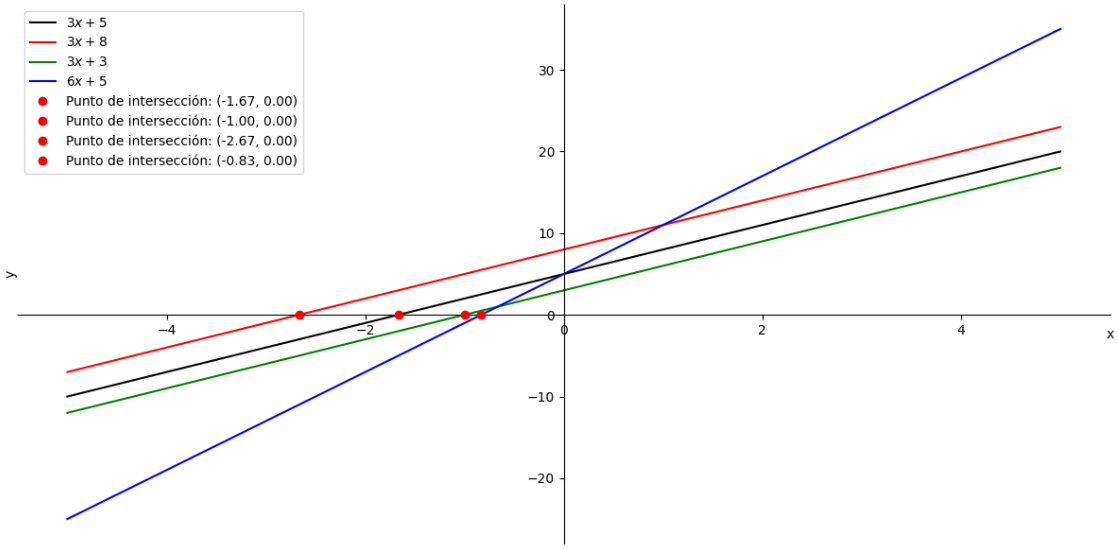
September 9, 2023

[9]:
```
from graph_math import graph
%load_ext autoreload
```

```
The autoreload extension is already loaded. To reload it, use:
  %reload_ext autoreload
```

1 Gráfica $y = 3x + 5$

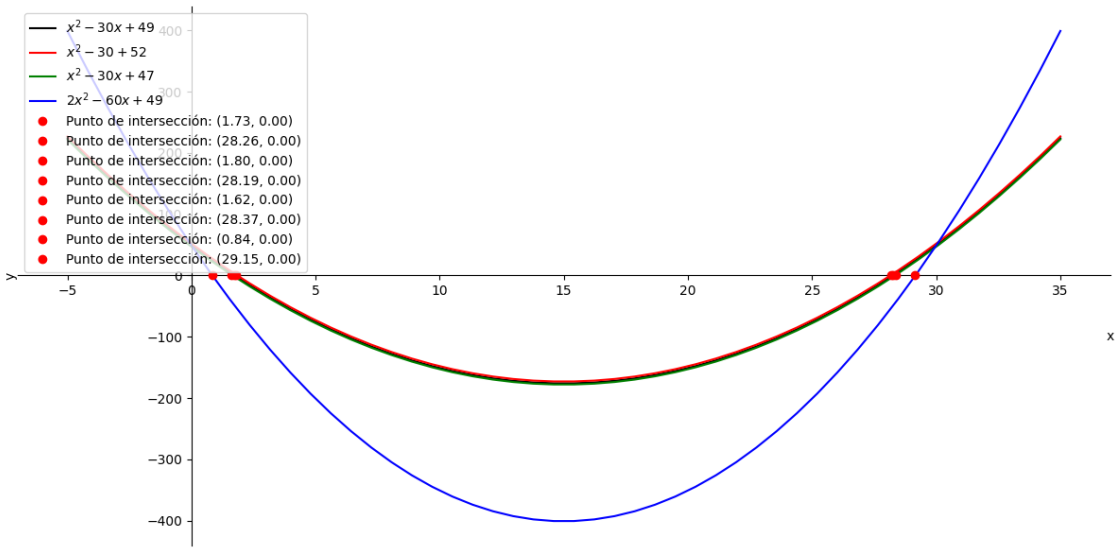
[12]:
```
%autoreload 2
functions = [lambda x: x*3+5, lambda x: x*3+8, lambda x: x*3+3, lambda x: x*6+5]
lables = ['$3x+5$', '$3x+8$', '$3x+3$', '$6x+5$']
graph(functions, min_value=-5.0, max_value=5.0, value=50, name=lables,
      inter=[(-5/3, 0), (-1, 0), (-8/3, 0), (-5/6, 0)], display=20)
```



2 Gráfica $x^2 - 30x + 49$

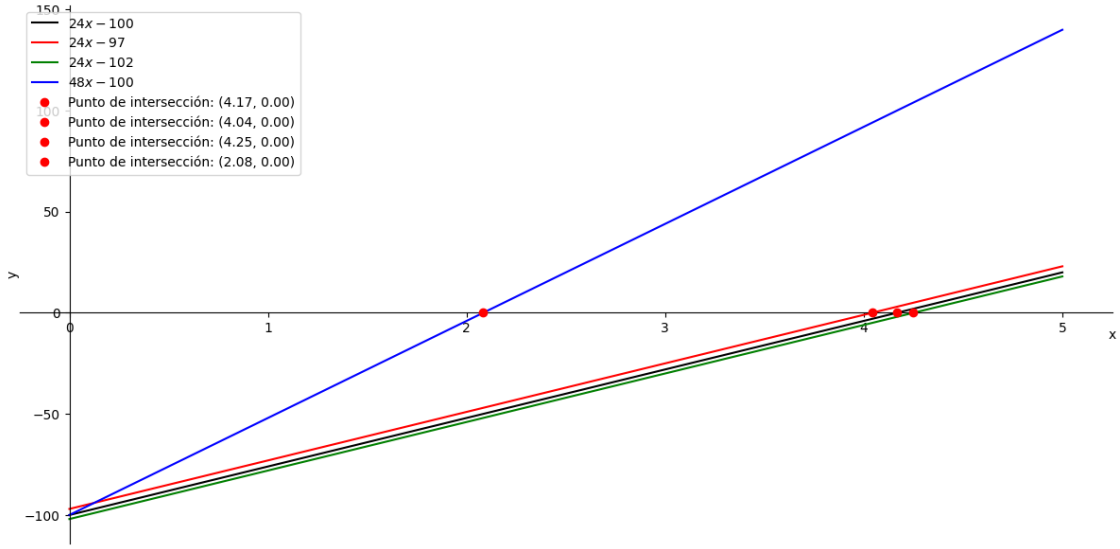
[22]:
```
# @title
functions = [lambda x: x**2-30*x+49,
             lambda x: x**2-30*x+52,
             lambda x: x**2-30*x+47,
             lambda x: 2*x**2-60*x+49]
lables = ['$x^2-30x+49$', '$x^2-30+52$', '$x^2-30x+47$', '$2x^2-60x+49$']
inters = [(1.73,0), (28.26, 0),    #x^2-30x+49
          (1.80,0), (28.19, 0),    #x^2-30+51
          (1.62,0), (28.37, 0),    #x^2-30x+46
          (0.84,0), (29.15, 0)] #2x^2+60x+49


graph(functions, min_value=-5.0, max_value=35.0, value=50, name=lables,
      inter=inters, display=20, spaces=5)
```



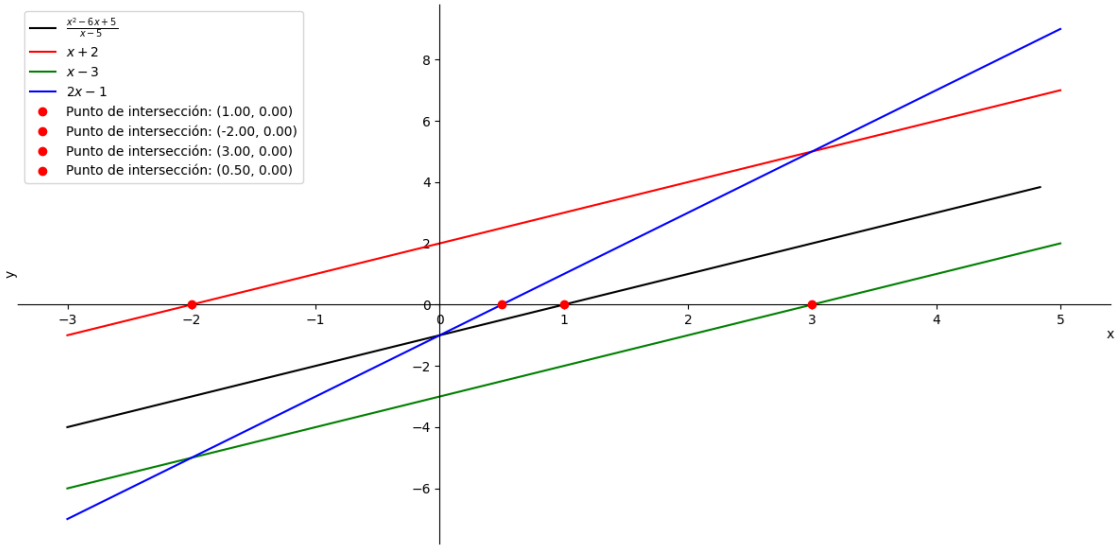
3 Gráfica $24x - 100$

[15]:
```
# @title
functions = [lambda x: x*24-100, lambda x: x*24-97, lambda x: x*24-102, lambda␣
 ↪x: x*48-100]
lables = ['$24x-100$', '$24x-97$', '$24x-102$', '$48x-100$']
graph(functions, min_value=0.0, max_value=5.0, value=50, name=lables,
      inter=[(100/24, 0), (97/24, 0), (102/24, 0), (100/48, 0)], display=20,␣
 ↪spaces=15)
```



4 Gráfica $\frac{x^2-6x+5}{x-5}$

[20]:
```
# @title
functions = [lambda x: (x**2-6*x+5)/(x-5), lambda x: x+2, lambda x: x-3, lambda x: x*2-1]
lables = [r'$\frac{x^2-6x+5}{x-5}$', '$x+2$', '$x-3$', '$2x-1$']
graph(functions, min_value=-3.0, max_value=5.0, value=50, name=lables,
      inter=[(1, 0), (-2, 0), (3, 0), (1/2, 0)], display=20,spaces=15)
```



5 Gráfica $\frac{(4+h)^2-16}{h}$

[21]:
```
# @title
functions = [lambda x: ((4+x)**2-16)/(x), lambda x: x+11, lambda x: x+6, lambda
 ↪x: x*2+8]
lables = [r'$\frac{(4+h)^2-16}{h}$', '$h+2$', '$h-3$', '$2h-1$']
graph(functions, min_value=-15.0, max_value=-0.0, value=40, name=lables,
      inter=[(-8, 0), (-11, 0), (-6, 0), (-4, 0)],x_label=0.23)
```