Calculus 30

1. Graph each of the following equations and determine the domain and range of each:

a) $3x-4y=2$

b) $y=-2x^2+5$

c) $x=2y^2-4$

d) $y=\sqrt{36-4x^2}$

e) $y=\sqrt{25-x^2}$

f) $y=\sqrt{x^2+36}$

g) $y=\sqrt{x^2-25}$

h) $x^2+y^2=16$

i) $4x^2-9y^2=36$

j) $y=\dfrac{1}{x+1}$

k) $y=\dfrac{2}{(x+1)(x-1)}$

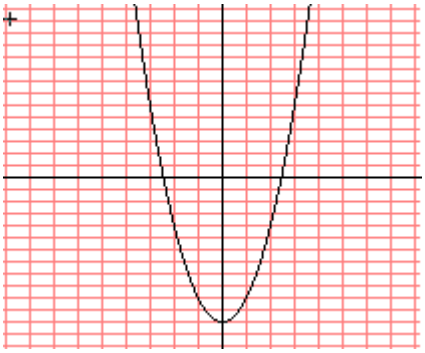
l) $y=\dfrac{3}{x^2-5x+6}$

m) $y=\dfrac{x}{x+5}$

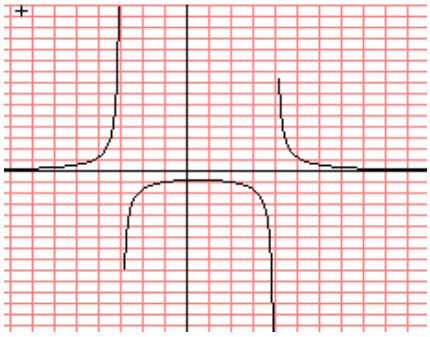
n) $y=\dfrac{x}{(x+3)(x-2)}$

2. From the given graph determine the domain and range:

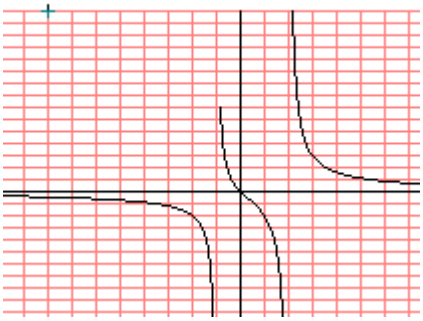
a)



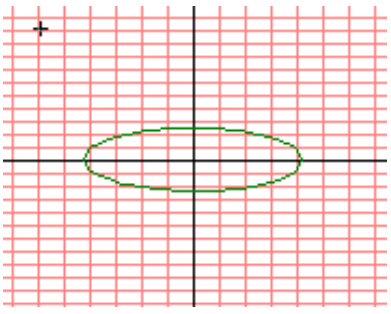
c)



a)



d)



3. Determine the possible equation given the domain and range:

a) domain $(-\infty,\infty)$, range $(-\infty,\infty)$

b) domain $(-\infty,\infty)$, range $(-\infty,4)$

c) domain $[-4,4]$, range $[-4,4]$

d) domain $(-\infty,-3]\cup[3,\infty)$, range $[0,\infty)$

e) domain $(-\infty,-2)\cup(-2,3)\cup(3,\infty)$, range $(-\infty,\infty)$