



Solve the simultaneous equations

$$2y - x + 3 = 0$$

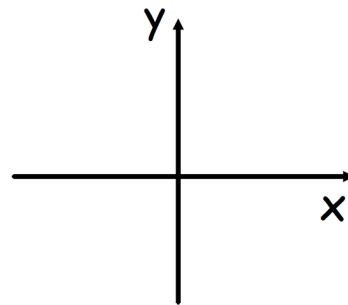
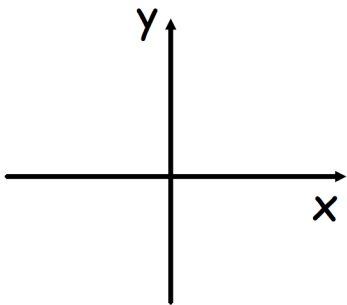
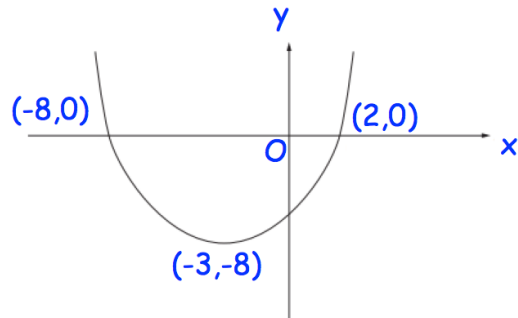
$$x^2 + xy = 0$$

Shown is a sketch of the graph
 $y = f(x)$.

(a) Sketch $-f(x)$

(b) Sketch $f(x + 1)$

Label known coordinates



The line l_1 has equation $y = 4x - 10$
The line l_2 has equation $x + y = 20$

The lines l_1 and l_2 intersect at the point
C.

The lines l_1 and l_2 cross the line $y = 2$
at the points A and B.

Find the area of triangle ABC.

A circle has equation

$$x^2 + y^2 = 400$$

Find the equation of the tangent to
the circle at the point $(16, -12)$