

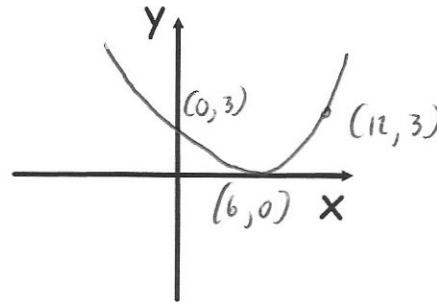
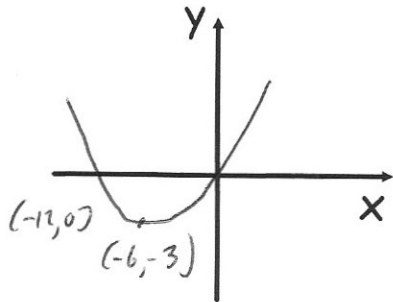
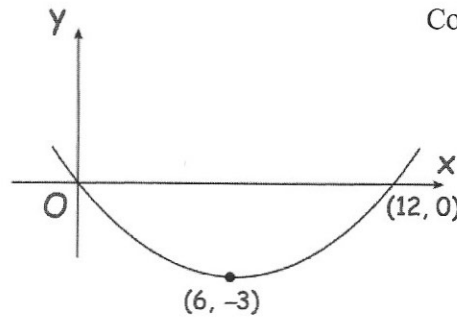


Shown is the graph of the function $y = f(x)$

Sketch

(a) $f(-x)$

(b) $f(x) + 3$ *vp*



Find the coordinates where the line $2x - y + 3 = 0$ and the curve $y = x^2 - x - 7$ intersect

$$y = 2x + 3$$

$$2x + 3 = x^2 - x - 7$$

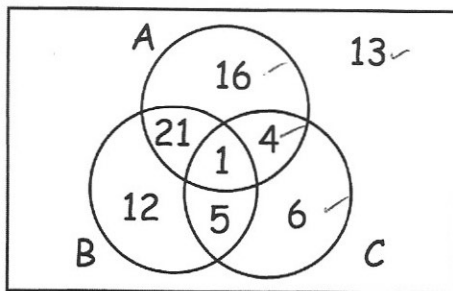
$$0 = x^2 - 3x - 10$$

$$(x - 5)(x + 2) = 0$$

$$x = 5 \quad x = -2$$

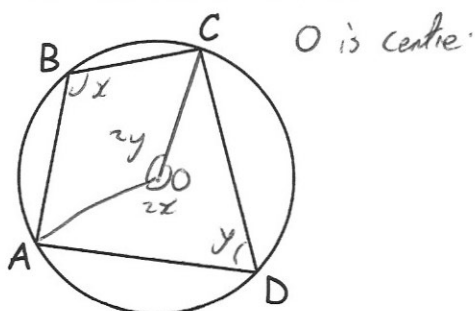
$$y = 13 \quad y = -1$$

$$(5, 13) \quad (-2, -1)$$



Find the probability of A given not B.

$$\frac{20}{39}$$



Prove the opposite angles in a cyclic quadrilateral add to 180°

Let $\angle ABC = x$ & $\angle ADC = y$
 then $\angle AOC = 2y$ (obtuse) & $\angle AOC = 2x$ (reflex)
 as angle at centre is twice angle at the circumference
 $\therefore 2x + 2y = 360$ (angles at a point)
 $x + y = 180$