Sketching Reciprocal Graphs
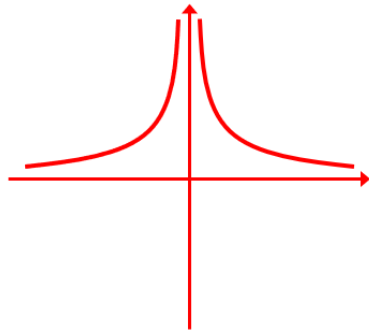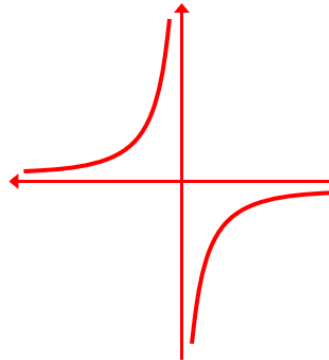
(a)

Sketch the graph of $y = \dfrac{1}{x^2}$ stating the equations of any asymptotes.
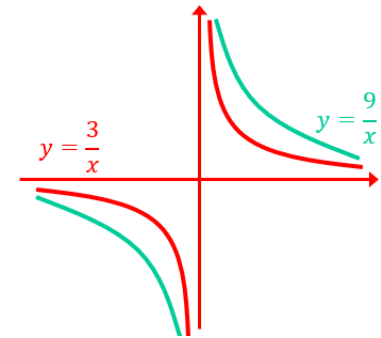

Asymptotes $x = 0$ and $y = 0$

(b)

Sketch the graph of $y = -\dfrac{2}{x}$ stating the equations of any asymptotes.
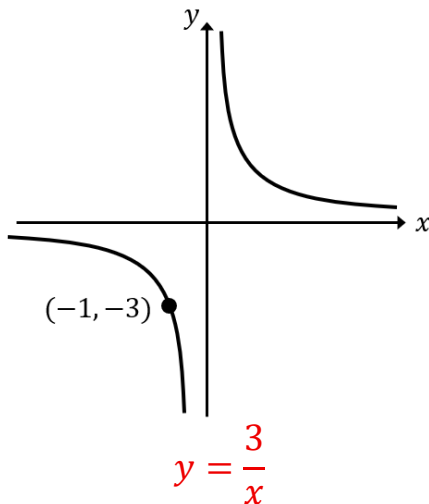

Asymptotes $x = 0$ and $y = 0$

(c)

On the same axes, sketch the graphs of $y = \dfrac{3}{x}$ and $y = \dfrac{9}{x}$
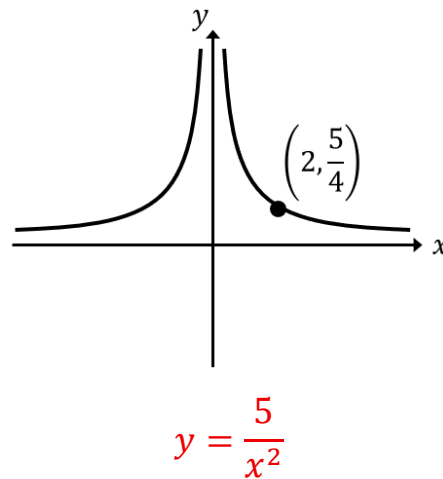

$y = \dfrac{3}{x}$ $y = \dfrac{9}{x}$

(d)

Find the equation of the graph shown.

$(-1, -3)$

$y = \dfrac{3}{x}$

(e)

Find the equation of the graph shown.

$\left(2, \dfrac{5}{4}\right)$

$y = \dfrac{5}{x^2}$

(f)

Find the equation of the graph shown.

$\left(3, -\dfrac{2}{3}\right)$

$y = -\dfrac{6}{x^2}$