

## 4.3) Reciprocal graphs

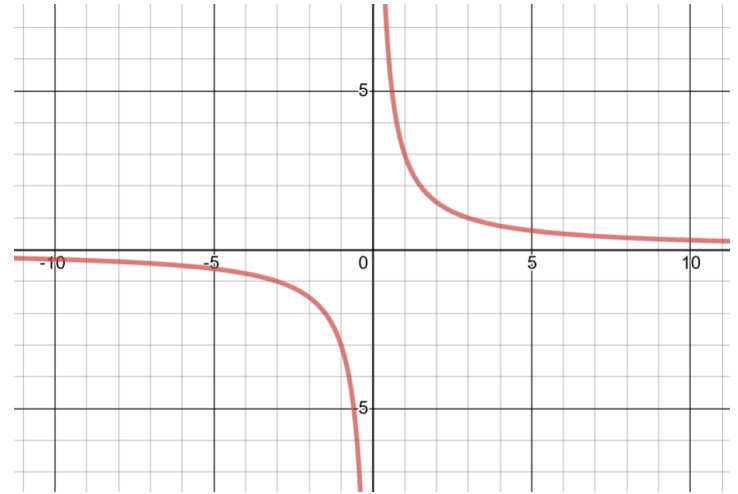
## Worked example

Sketch the graph of  $y = \frac{a}{x}$ ,  $a > 0$

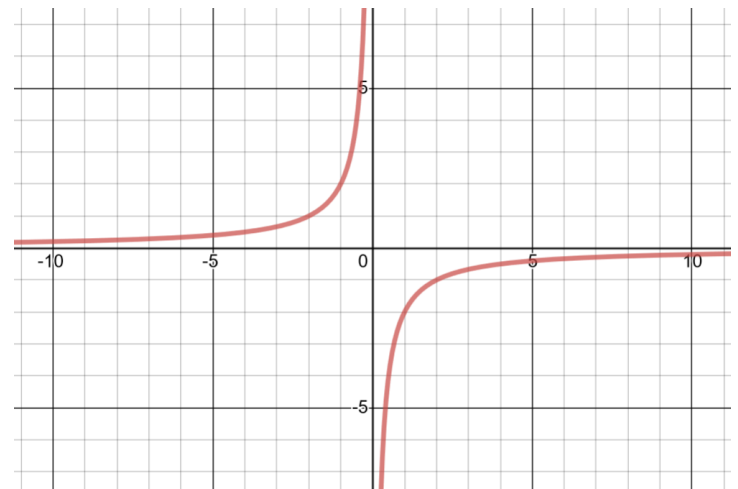
Sketch the graph of  $y = \frac{a}{x}$ ,  $a < 0$

## Your turn

Sketch the graph of  $y = \frac{3}{x}$



Sketch the graph of  $y = \frac{-2}{x}$

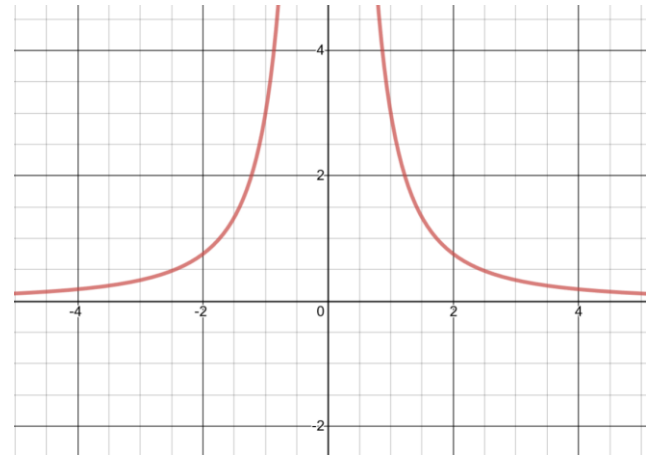


## Worked example

Sketch the graph of  $y = \frac{a}{x^2}$ ,  $a > 0$

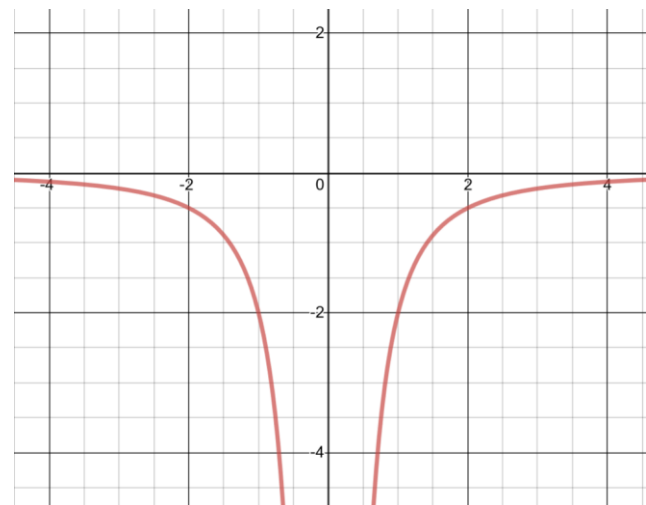
## Your turn

Sketch the graph of  $y = \frac{3}{x^2}$



Sketch the graph of  $y = \frac{a}{x^2}$ ,  $a < 0$

Sketch the graph of  $y = \frac{-2}{x^2}$



## Worked example

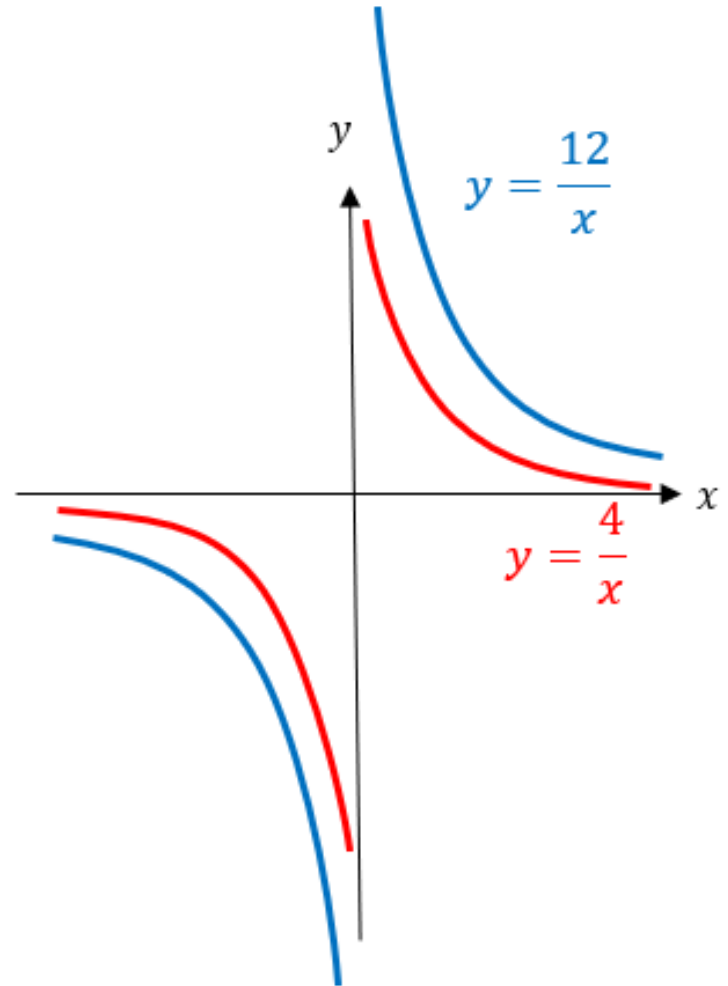
Sketch on the same diagram:

$$y = \frac{2}{x} \text{ and } y = \frac{8}{x}$$

## Your turn

Sketch on the same diagram:

$$y = \frac{4}{x} \text{ and } y = \frac{12}{x}$$



## Worked example

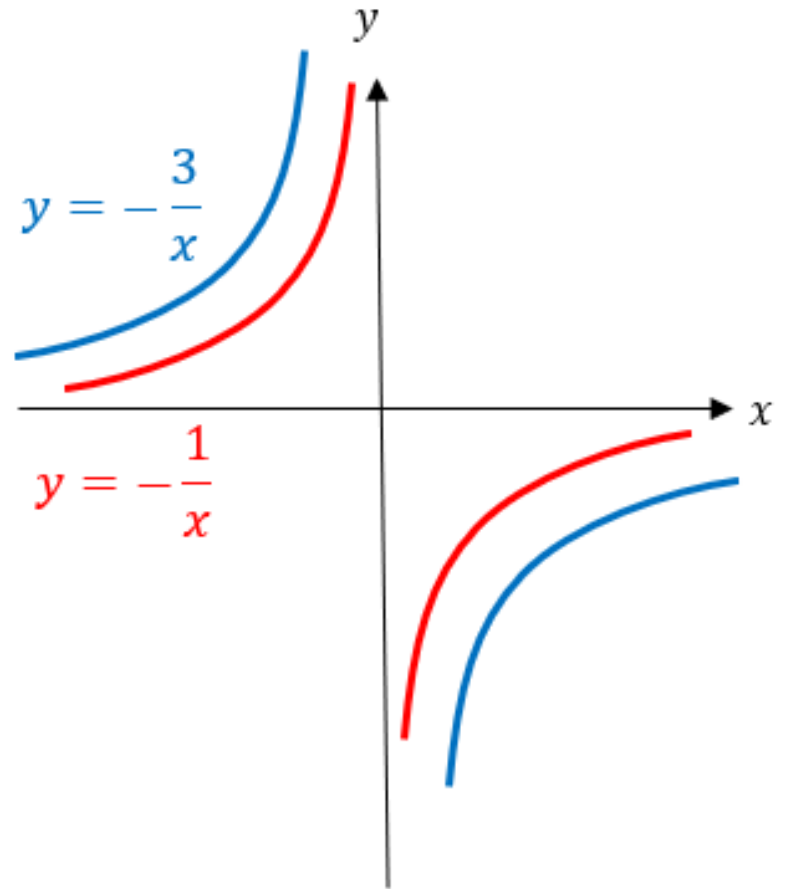
Sketch on the same diagram:

$$y = -\frac{2}{x} \text{ and } y = -\frac{8}{x}$$

## Your turn

Sketch on the same diagram:

$$y = -\frac{1}{x} \text{ and } y = -\frac{3}{x}$$



## Worked example

Sketch on the same diagram:

$$y = \frac{2}{x^2} \text{ and } y = \frac{7}{x^2}$$

## Your turn

Sketch on the same diagram:

$$y = \frac{4}{x^2} \text{ and } y = \frac{10}{x^2}$$

