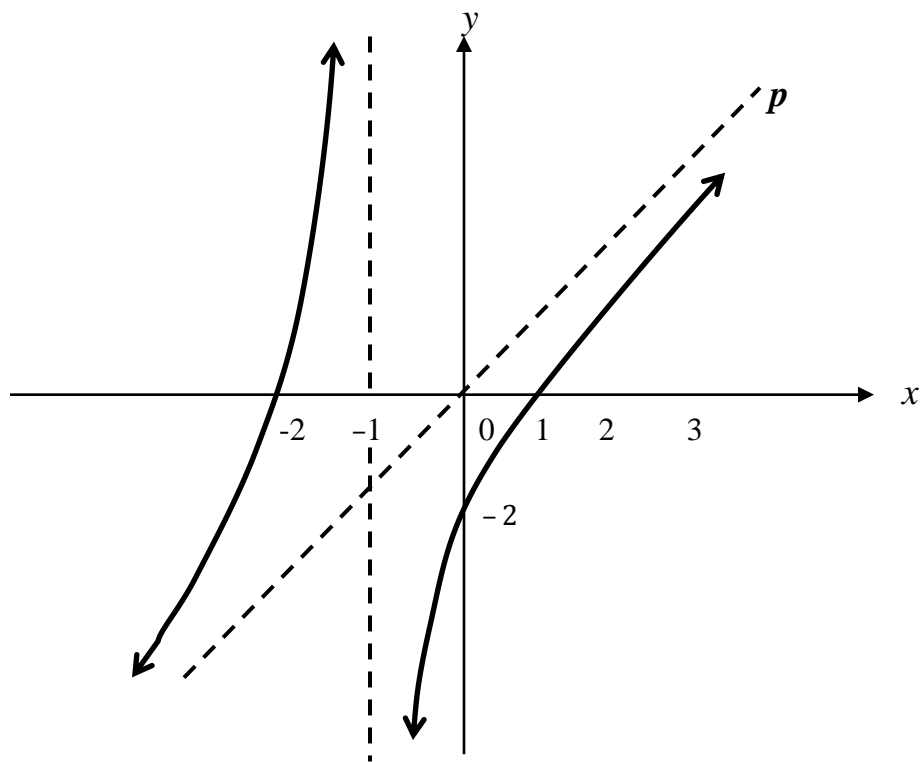# Worksheet 6
Year 13 Mathematics

Write the answers in your Exercise Book.

Study the **top-heavy** function shown below and then answer the questions that follow.

(a)   What are the coordinates of the **x-intercepts**?   **(1 mark)**

(b)   What are the coordinates of the **y-intercept**?   **(½ mark)**

(c)   State the equations of the **vertical** asymptote.   **(1 mark)**

(d)   What is the name of the asymptote represented by line **p**?   **(½ mark)**

(e)   The graph has the equation of the form

$$y = \frac{(x+a)(x-b)}{(x+c)}$$

Find the values of *a*, *b*, c and *d*.   **(2 marks)**