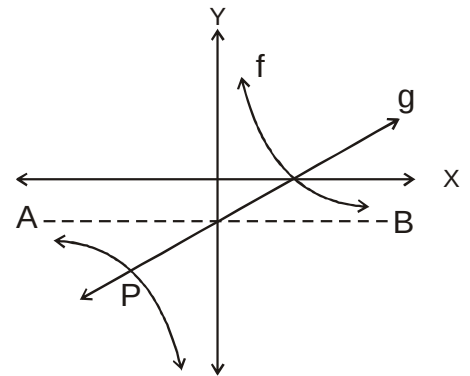


(1) The sketch shows the graphs of $f(x) = \frac{6}{x} - 2$ and

$$g(x) = mx + c.$$

Use the graph to answer the following:

- Determine the equation of AB .
- Write down the range of f .
- Determine the values of m and c .
- Calculate the coordinates of P .
- Determine the equations of the asymptotes of h if $h(x) = f(x) + 2$.



(2) In the sketch: $p(x) = -(2x^2 + 2)$ and $q(x) = 2(x^2 + 2)$

- Calculate the length of AB .
- Will p be the reflection of q in the x -axis? Motivate.
- If your answer in (b) is no, write the correct equation of the reflection of p in the x -axis.
- Write down the turning point of $h(x)$, if $h(x) = p(x) - 4$
- Write down the range of q .

