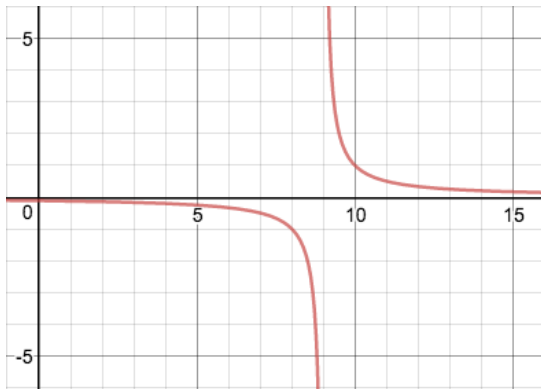


Determine the domain, range, end behavior and vertical and horizontal asymptotes of each rational function.

1.



Domain:

Range:

End Behavior:

as $x \rightarrow \infty, y \rightarrow$ ____

as $x \rightarrow -\infty, y \rightarrow$ ____

Asymptotic Behavior:

as $x \rightarrow 9^-, y \rightarrow$ ____

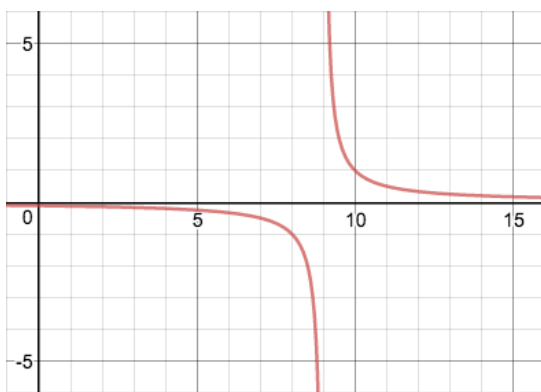
as $x \rightarrow 9^+, y \rightarrow$ ____

Vertical Asymptote:

Horizontal Asymptote:

Determine the domain, range, end behavior and vertical and horizontal asymptotes of each rational function.

1.



Domain:

Range:

End Behavior:

as $x \rightarrow \infty, y \rightarrow$ ____

as $x \rightarrow -\infty, y \rightarrow$ ____

Asymptotic Behavior:

as $x \rightarrow 9^-, y \rightarrow$ ____

as $x \rightarrow 9^+, y \rightarrow$ ____

Vertical Asymptote:

Horizontal Asymptote:

2.

$$f(x) = \frac{3}{x}$$

Domain:

Range:

Vertical Asymptote:

Horizontal Asymptote:

End Behavior:

as $x \rightarrow \infty$, $y \rightarrow$ ____

as $x \rightarrow -\infty$, $y \rightarrow$ ____

Asymptotic Behavior:

as $x \rightarrow$ ____, $y \rightarrow$ ____

as $x \rightarrow$ ____, $y \rightarrow$ ____

2.

$$f(x) = \frac{3}{x}$$

Domain:

Range:

Vertical Asymptote:

Horizontal Asymptote:

End Behavior:

as $x \rightarrow \infty$, $y \rightarrow$ ____

as $x \rightarrow -\infty$, $y \rightarrow$ ____

Asymptotic Behavior:

as $x \rightarrow$ ____, $y \rightarrow$ ____

as $x \rightarrow$ ____, $y \rightarrow$ ____