

6.1

Finding Parts of Rational Graphs from Graphs

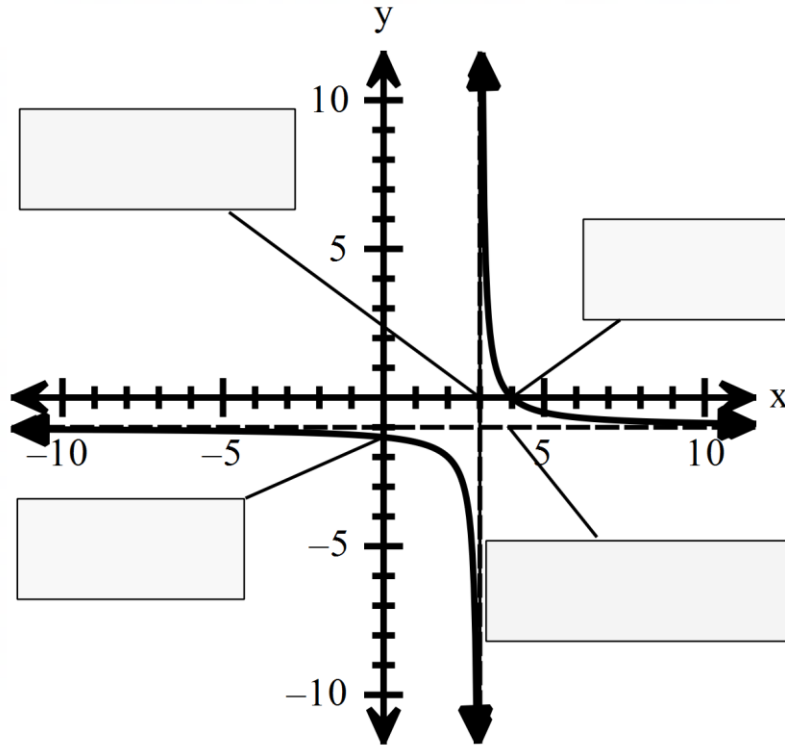
SCORE: /

2023-2024

Name _____ Date _____ Period _____

Write in the boxes the vocabulary word for the indicated part. Then write the number answer for each part.

1.



Find the following information for each graph. Write the intercepts as ordered pairs to the nearest tenth. Write the asymptotes as equations. Write the domain and range in interval notation. If there aren't any, write DNE (does not exist) or N/A.

2. x -intercept(s): _____

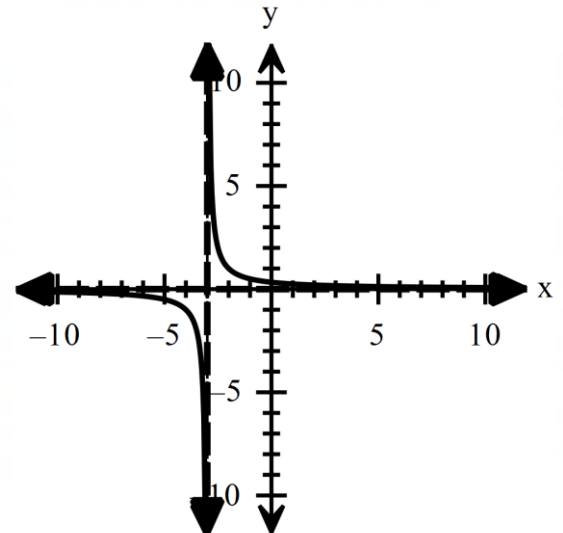
y -intercept: _____

Vertical Asymptote(s): _____

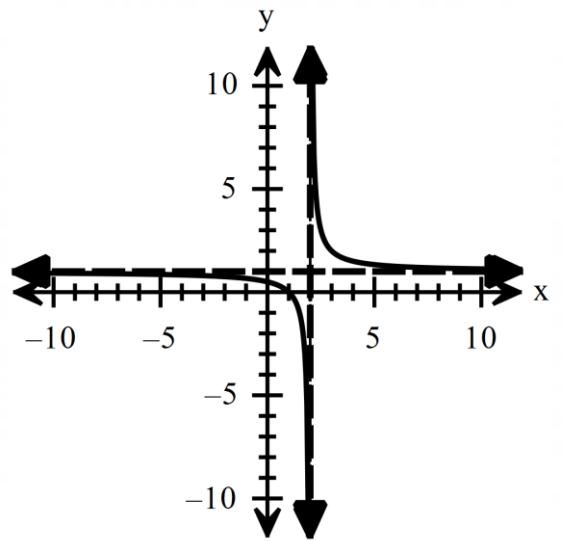
Horizontal Asymptote: _____

Domain: _____

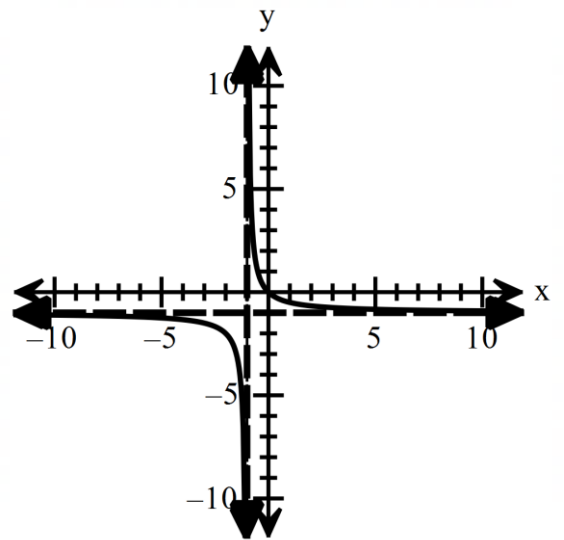
Range: _____



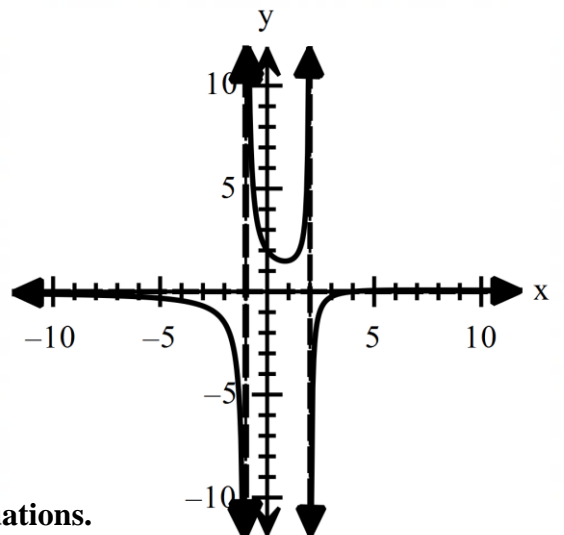
3. x -intercept(s): _____
 y -intercept: _____
 Vertical Asymptote(s): _____
 Horizontal Asymptote: _____
 Domain: _____
 Range: _____



4. x -intercept(s): _____
 y -intercept: _____
 Vertical Asymptote(s): _____
 Horizontal Asymptote: _____
 Domain: _____
 Range: _____

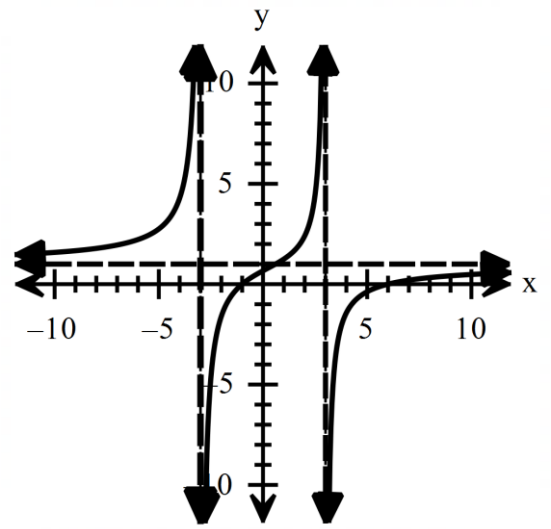


5. x -intercept(s): _____
 y -intercept: _____
 Vertical Asymptote(s): _____
 Horizontal Asymptote: _____
 Domain: _____
 Range: _____



***If there is more than one asymptote, write 2 separate equations.**

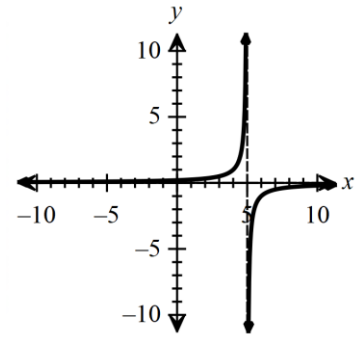
6. x-intercept(s): _____
 y- intercept: _____
 Vertical Asymptote(s): _____
 Horizontal Asymptote: _____
 Domain: _____
 Range: _____



Find the end behavior on the following graphs.

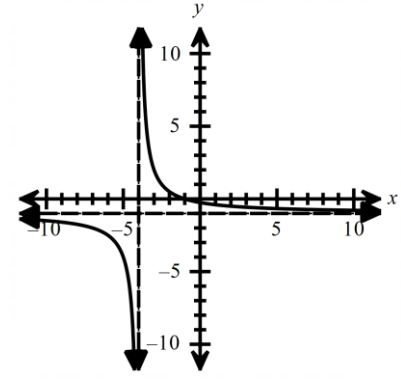
7. $\lim_{x \rightarrow \infty} f(x) =$

$\lim_{x \rightarrow -\infty} f(x) =$



8. $\lim_{x \rightarrow \infty} f(x) =$

$\lim_{x \rightarrow -\infty} f(x) =$

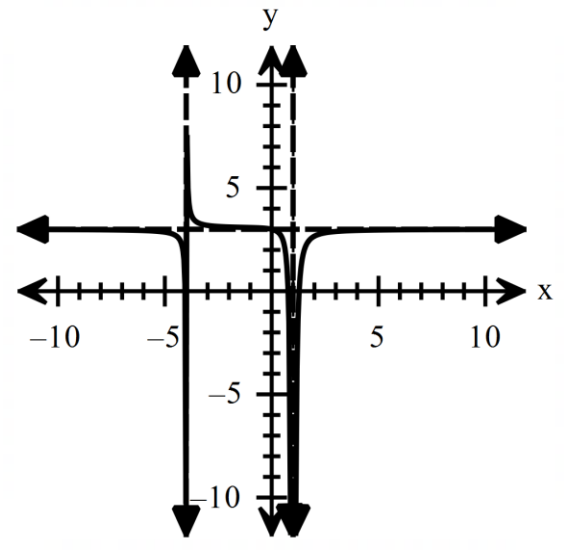


9. What relationship do you notice about the end behavior and the horizontal asymptote?

10. What is the end behavior for the following graph?

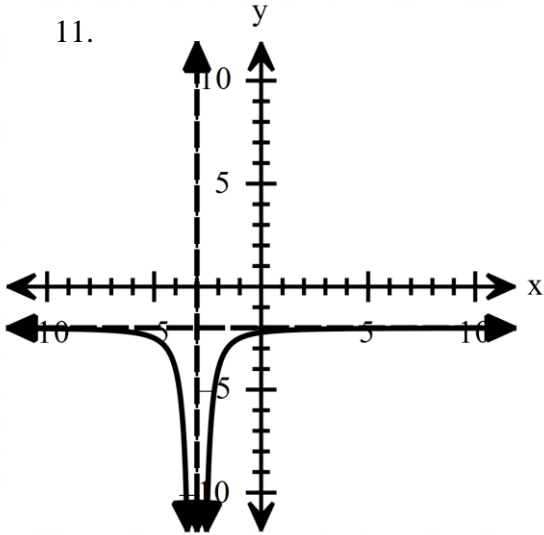
$\lim_{x \rightarrow \infty} f(x) =$

$\lim_{x \rightarrow -\infty} f(x) =$



Given the graphs of the function below, determine the key features.

11.



y-intercept: $(0, -2.22)$

x-intercept:

Increasing:

Positive:

Decreasing:

Negative:

End Behavior/Limits:

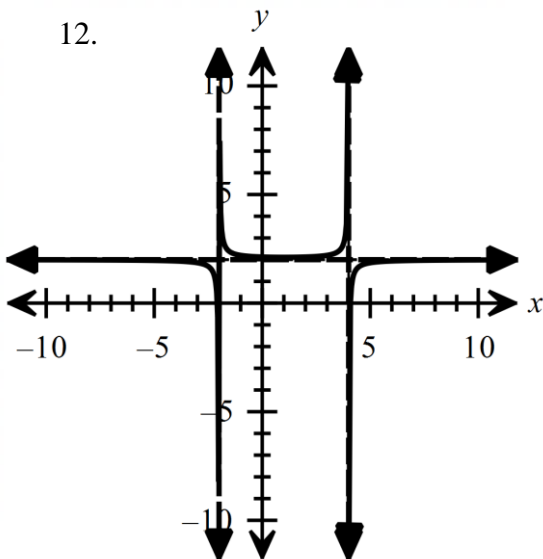
$\lim_{x \rightarrow -\infty} f(x) =$

$\lim_{x \rightarrow \infty} f(x) =$

Vertical Asymptote(s):

Horizontal Asymptote:

12.



y-intercept: $(0, 2.125)$

x-intercept: $(4.082, 0)$ and $(-2.082, 0)$

Minimum: $(1, 2.111)$

Increasing:

Positive:

Decreasing:

Negative:

End Behavior/Limits:

$\lim_{x \rightarrow -\infty} f(x) =$

$\lim_{x \rightarrow \infty} f(x) =$

Vertical Asymptote(s):

Horizontal Asymptote: