

4a) Sketch a graph of the given equation.

b) Give or label the horizontal and vertical asymptote

c) Give the Domain

$$y = \frac{8}{x}$$

5a) Sketch a graph of the given equation.

b) Give or label the horizontal and vertical asymptote

c) Give the Domain

$$y = \frac{1}{x + 2}$$

5. Use the equation to answer the following:

$$y = \frac{-4x + 8}{-5x + 15}$$

a) Find the vertical asymptote

c) Find the y-intercept of the graph

b) Find the horizontal asymptote

d) Find the x-intercept of the graph

e) Sketch a graph

6. Use the equation to answer the following:

$$y = \frac{x^2 - 7x + 12}{x^2 + 4x - 5}$$

- a) Find the vertical asymptote
- b) Find the horizontal asymptote
- c) Find the y-intercept of the graph
- d) Find the x-intercept of the graph
- e) Sketch a graph

7. Use the equation to answer the following:

$$y = \frac{x - 2}{x^2 - 5x - 14}$$

- a) Find the vertical asymptote
- b) Find the horizontal asymptote
- c) Find the y-intercept of the graph
- d) Find the x-intercept of the graph
- e) Sketch a graph

8. Use the equation to answer the following:

$$y = \frac{x^2 - x - 30}{x^2 - 3x - 18}$$

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|--|--------------------------------------|
| a) Find the vertical asymptote | c) Find the y-intercept of the graph |
| b) Find the horizontal asymptote | d) Find the x-intercept of the graph |
| e) Find the x and y coordinate of the hole | f) Sketch a graph |

9. Use the equation to answer the following:

$$y = \frac{x^2 - 3x - 10}{x - 2}$$

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|--------------------------------|--------------------------------------|
| a) Find the vertical asymptote | c) Find the y-intercept of the graph |
| b) Find the slant asymptote | d) Find the x-intercept of the graph |
| e) Sketch a graph | |