- 1. Graph and label each of the rational functions using Desmos
 - a. Label x intercept(s) with a point and a coordinate
 - b. Label y intercept with a point and a coordinate
 - c. Label vertical asymptotes with red dotted lines
 - d. Label horizontal asymptotes with green dotted lines
 - e. Label holes with a point and a coordinate
 - f. Label points on graph -10 to 10
- 2. The slant asymptote is given for the functions that it applies to, but it is expected that you can determine the horizontal asymptotes and the vertical asymptotes
- 3. Send an email with the graphs attached as links to shad.hickman @psd150.org
- 4. BE SURE to put your names IN the document itself

There is a video showing how to do each of these types of graphs on Mr. Hickman's website under the AP calculus tab

$f(x) = \frac{x+4}{x-5}$	$g(x) = \frac{x^2 - 4}{x + 5}$ Slant asymptote	$h(x) = \frac{2x+10}{x+5}$ Has HOLE!	$j(x) = \frac{x+4}{x^2 - 25}$	$k(x) = \frac{7x+35}{x^2-25}$ Has HOLE!
	y = x - J			

Partner Desmos Assignment

- 1. Graph and label each of the rational functions using Desmos
 - a. Label x intercept(s) with a point and a coordinate
 - b. Label y intercept with a point and a coordinate
 - c. Label vertical asymptotes with red dotted lines
 - d. Label horizontal asymptotes with green dotted lines
 - e. Label holes with a point and a coordinate
 - f. Label points on graph -10 to 10
- 2. The slant asymptote is given for the functions that it applies to, but it is expected that you can determine the horizontal asymptotes and the vertical asymptotes
- 3. Send an email with the graphs attached as links to shad.hickman @psd150.org
- 4. BE SURE to put your names IN the document itself

$f(x) = \frac{x-6}{x+5}$	$g(x) = \frac{x^2 - 36}{x - 8}$	$h(x) = \frac{3x - 15}{x - 5}$	$j(x) = \frac{x+3}{x^2 - 81}$	$k(x) = \frac{4x - 36}{x^2 - 81}$
	Slant asymptote	Has HOLE!		Has HOLE!
	y = x + 8			

- 1. Graph and label each of the rational functions using Desmos
 - a. Label x intercept(s) with a point and a coordinate
 - b. Label y intercept with a point and a coordinate
 - c. Label vertical asymptotes with red dotted lines
 - d. Label horizontal asymptotes with green dotted lines
 - e. Label holes with a point and a coordinate
 - f. Label points on graph -10 to 10
- 2. The slant asymptote is given for the functions that it applies to, but it is expected that you can determine the horizontal asymptotes and the vertical asymptotes
- 3. Send an email with the graphs attached as links to shad.hickman @psd150.org
- 4. BE SURE to put your names IN the document itself

There is a video showing how to do each of these types of graphs on Mr. Hickman's website under the AP calculus tab

$f(x) = \frac{x+1}{x-5}$	$g(x) = \frac{x^2 - 4}{x + 7}$ Slant asymptote	$h(x) = \frac{5x+10}{x+2}$ Has HOLE!	$j(x) = \frac{x+9}{x^2 - 49}$	$k(x) = \frac{2x+12}{x^2-36}$ Has HOLE!
	y = x - 7			

Partner Desmos Assignment

- 1. Graph and label each of the rational functions using Desmos
 - a. Label x intercept(s) with a point and a coordinate
 - b. Label y intercept with a point and a coordinate
 - c. Label vertical asymptotes with red dotted lines
 - d. Label horizontal asymptotes with green dotted lines
 - e. Label holes with a point and a coordinate
 - f. Label points on graph -10 to 10
- 2. The slant asymptote is given for the functions that it applies to, but it is expected that you can determine the horizontal asymptotes and the vertical asymptotes
- 3. Send an email with the graphs attached as links to shad.hickman @psd150.org
- 4. BE SURE to put your names IN the document itself

$f(x) = \frac{x+6}{x-3}$	$g(x) = \frac{x^2 - 49}{x - 3}$ Slant asymptote	$h(x) = \frac{2x - 12}{x - 6}$ Has HOLE!	$j(x) = \frac{x+5}{x^2 - 25}$	$k(x) = \frac{5x+20}{x^2-16}$ Has HOLE!
	y = x + 3			

- 1. Graph and label each of the rational functions using Desmos
 - a. Label x intercept(s) with a point and a coordinate
 - b. Label y intercept with a point and a coordinate
 - c. Label vertical asymptotes with red dotted lines
 - d. Label horizontal asymptotes with green dotted lines
 - e. Label holes with a point and a coordinate
 - f. Label points on graph -10 to 10
- 2. The slant asymptote is given for the functions that it applies to, but it is expected that you can determine the horizontal asymptotes and the vertical asymptotes
- 3. Send an email with the graphs attached as links to shad.hickman @psd150.org
- 4. BE SURE to put your names IN the document itself

There is a video showing how to do each of these types of graphs on Mr. Hickman's website under the AP calculus tab

$f(x) = \frac{x+1}{x-6}$	$g(x) = \frac{x^2 - 9}{x + 8}$ Slant asymptote	$h(x) = \frac{3x + 12}{x + 4}$ Has HOLE!	$j(x) = \frac{x-7}{x^2 - 64}$	$k(x) = \frac{2x - 16}{x^2 - 64}$ Has HOLE!
	y = x - 8			

Partner Desmos Assignment

- 1. Graph and label each of the rational functions using Desmos
 - a. Label x intercept(s) with a point and a coordinate
 - b. Label y intercept with a point and a coordinate
 - c. Label vertical asymptotes with red dotted lines
 - d. Label horizontal asymptotes with green dotted lines
 - e. Label holes with a point and a coordinate
 - f. Label points on graph -10 to 10
- 2. The slant asymptote is given for the functions that it applies to, but it is expected that you can determine the horizontal asymptotes and the vertical asymptotes
- 3. Send an email with the graphs attached as links to shad.hickman @psd150.org
- 4. BE SURE to put your names IN the document itself

$f(x) = \frac{x+7}{x-2}$	$g(x) = \frac{x^2 - 49}{x - 3}$ Slant asymptote	$h(x) = \frac{4x + 20}{x + 5}$ Has HOLE!	$j(x) = \frac{x+6}{x^2-64}$	$k(x) = \frac{3x + 24}{x^2 - 64}$ Has HOLE!
	y = x + 3			

- 1. Graph and label each of the rational functions using Desmos
 - a. Label x intercept(s) with a point and a coordinate
 - b. Label y intercept with a point and a coordinate
 - c. Label vertical asymptotes with red dotted lines
 - d. Label horizontal asymptotes with green dotted lines
 - e. Label holes with a point and a coordinate
 - f. Label points on graph -10 to 10
- 2. The slant asymptote is given for the functions that it applies to, but it is expected that you can determine the horizontal asymptotes and the vertical asymptotes
- 3. Send an email with the graphs attached as links to shad.hickman @psd150.org
- 4. BE SURE to put your names IN the document itself

There is a video showing how to do each of these types of graphs on Mr. Hickman's website under the AP calculus tab

$f(x) = \frac{x+3}{x-6}$	$g(x) = \frac{x^2 - 36}{x + 9}$	$h(x) = \frac{6x - 18}{x - 3}$	$j(x) = \frac{x-7}{x^2 - 25}$	$k(x) = \frac{2x + 18}{x^2 - 81}$
	Slant asymptote	Has HOLE!		Has HOLE!
	y = x - 9			

Partner Desmos Assignment

- 1. Graph and label each of the rational functions using Desmos
 - a. Label x intercept(s) with a point and a coordinate
 - b. Label y intercept with a point and a coordinate
 - c. Label vertical asymptotes with red dotted lines
 - d. Label horizontal asymptotes with green dotted lines
 - e. Label holes with a point and a coordinate
 - f. Label points on graph -10 to 10
- 2. The slant asymptote is given for the functions that it applies to, but it is expected that you can determine the horizontal asymptotes and the vertical asymptotes
- 3. Send an email with the graphs attached as links to shad.hickman @psd150.org
- 4. BE SURE to put your names IN the document itself

$f(x) = \frac{x+1}{x-7}$	$g(x) = \frac{x^2 - 25}{x - 6}$	$h(x) = \frac{3x - 21}{x - 7}$	$j(x) = \frac{x+6}{x^2 - 16}$	$k(x) = \frac{3x + 15}{x^2 - 25}$
	Slant asymptote	Has HOLE!		Has HOLE!
	y = x + 6			

- 1. Graph and label each of the rational functions using Desmos
 - a. Label x intercept(s) with a point and a coordinate
 - b. Label y intercept with a point and a coordinate
 - c. Label vertical asymptotes with red dotted lines
 - d. Label horizontal asymptotes with green dotted lines
 - e. Label holes with a point and a coordinate
 - f. Label points on graph -10 to 10
- 2. The slant asymptote is given for the functions that it applies to, but it is expected that you can determine the horizontal asymptotes and the vertical asymptotes
- 3. Send an email with the graphs attached as links to shad.hickman @psd150.org
- 4. BE SURE to put your names IN the document itself

There is a video showing how to do each of these types of graphs on Mr. Hickman's website under the AP calculus tab

$f(x) = \frac{x+4}{x-1}$ $g(x) = \frac{x^2 - 1}{x-9}$ Slant asymptote $y = x+9$	$h(x) = \frac{4x + 28}{x + 7}$ Has HOLE!	$j(x) = \frac{x+8}{x^2 - 25}$	$k(x) = \frac{6x - 24}{x^2 - 16}$ Has HOLE!
---------------------------------------------------------------------------------	---------------------------------------------	-------------------------------	------------------------------------------------

Partner Desmos Assignment

- 1. Graph and label each of the rational functions using Desmos
 - a. Label x intercept(s) with a point and a coordinate
 - b. Label y intercept with a point and a coordinate
 - c. Label vertical asymptotes with red dotted lines
 - d. Label horizontal asymptotes with green dotted lines
 - e. Label holes with a point and a coordinate
 - f. Label points on graph -10 to 10
- 2. The slant asymptote is given for the functions that it applies to, but it is expected that you can determine the horizontal asymptotes and the vertical asymptotes
- 3. Send an email with the graphs attached as links to shad.hickman @psd150.org
- 4. BE SURE to put your names IN the document itself

$f(x) = \frac{x+2}{x-8}$	$g(x) = \frac{x^2 - 16}{x - 8}$ Slant asymptote	$h(x) = \frac{5x+35}{x+7}$ Has HOLE!	$j(x) = \frac{x-7}{x^2 - 25}$	$k(x) = \frac{4x - 100}{x^2 - 25}$ Has HOLE!
	y = x + 8			