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Only three forms of an answer will get you full credit the statement of a point, the statement of a line, the word NONE (this is a section that you will be on SUMMATIVE assessment on Thursday)	Only three forms of an answer will get you full credit A numerical value, $+\infty$, or $-\infty$ (this is a section that you will be on FORMATIVE assessment on FRIDAY)	
1. $f(x) = \frac{x^2 + 5x + 4}{2x^2 + 5x^2} = \frac{(x+1)(x+4)}{2x^2 + 5x^2}$	Function Behavior from the LEFT of given x values	Function Behavior from the RIGHT of given x values
$-2x^3+8x$ $-2x(x+2)(x-2)$	As $x \rightarrow 1$ $y \rightarrow$	As $x \rightarrow 1^+ y \rightarrow _$
X intercept(s)	As $x \rightarrow -2$ $y \rightarrow ___$	As $x \rightarrow -2^+ y \rightarrow \underline{\qquad}$
Y intercept		1
Horizontal asymptote	As $x \rightarrow 0$ $y \rightarrow$	As $x \rightarrow 0^{\top} y \rightarrow _$
Vertical asymptote	As $x \rightarrow 2^{-} y \rightarrow _$	As $x \rightarrow 2^+ y \rightarrow ___$
Does this rational function have a hole?		
If this rational function has a hole, then state it	END behavior of a function	END behavior of a function
	As $x \to -\infty$ $y \to _$	As $x \rightarrow +\infty$ $y \rightarrow _$
State Domain of the Function using one method (On Formative Friday)	State Domain of the Functior (on Formative Friday)	using a different method
Only three forms of an answer will get you full credit the statement of a point, the statement of a line, the word NONE (this is a section that you will be on SUMMATIVE assessment on Thursday)	Only three forms of an answer will get you full credit A numerical value, $+\infty$, or $-\infty$ (this is a section that you will be on FORMATIVE assessment on FRIDAY)	
2. $g(x) = \frac{x^2 - 4}{x^3 + 5x^2 - 14x} = \frac{(x+2)(x-2)}{x(x+7)(x-2)}$	Function Behavior from the LEFT of given x values	Function Behavior from the RIGHT of given x values
	As $x \rightarrow -7$ $y \rightarrow ___$	As $x \rightarrow -7^+ y \rightarrow ___$
X intercept(s)	As $x \rightarrow -2^{-} y \rightarrow _$	As $x \rightarrow -2^+ y \rightarrow ____$
Y intercept	_	+
Horizontal asymptote	As $x \rightarrow 0$ $y \rightarrow$	As $x \rightarrow 0$ $y \rightarrow$
Vertical asymptote	As $x \rightarrow 2^{-} y \rightarrow _$	As $x \rightarrow 2^+ y \rightarrow ___$
Does this rational function have a hole?	END behavior of a function	END behavior of a function
	As $x \rightarrow -\infty$ $y \rightarrow ___$	As $x \to +\infty$ $y \to _$
State Domain of the Function using one method (On Formative Friday)	State Domain of the Functior (on Formative Friday)	using a different method

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3. $h(x) = \frac{x^2 + 1x - 2}{2x^2 + 1x} = \frac{(x+2)(x-1)}{2x^2 + 1x^2}$	Function Behavior from the LEFT of given x values	Function Behavior from the RIGHT of given x values
$-2x^{3}+8x$ $-2x(x+2)(x-2)$	As $x \rightarrow 1$ $y \rightarrow$	As $x \rightarrow 1^+ y \rightarrow ___$
X intercept(s) Y intercept	As $x \rightarrow -2^{-} y \rightarrow \underline{\qquad}$	As $x \rightarrow -2^+ y \rightarrow \underline{\qquad}$
Horizontal asymptote	As $x \rightarrow 0$ $y \rightarrow$	As $x \rightarrow 0^+ y \rightarrow ___$
Vertical asymptote	As $x \rightarrow 2^{-} y \rightarrow _$	As $x \rightarrow 2^+ y \rightarrow ___$
If this rational function has a hole, then state it	END behavior of a function	END behavior of a function
	As $x \to -\infty$ $y \to ___$	As $x \rightarrow +\infty$ $y \rightarrow ___$
State Domain of the Function using one method (On Formative Friday)	State Domain of the Functior (on Formative Friday)	using a different method
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4. $j(x) = \frac{x^2 - 4x}{2x^3 + 10x^2} = \frac{x(x-4)}{2x^2(x+5)}$	Function Behavior from the LEFT of given x values	Function Behavior from the RIGHT of given x values
	As $x \rightarrow 4$ $y \rightarrow$	As $x \rightarrow 4^+ y \rightarrow \underline{\qquad}$
X intercept(s) Y intercept	As $x \rightarrow -5^{-} y \rightarrow _$	As $x \rightarrow -5^+ y \rightarrow ___$
Horizontal asymptote	As $x \rightarrow 0$ $y \rightarrow$	As $x \rightarrow 0^+ y \rightarrow ___$
Vertical asymptote	As $x \rightarrow 3^{-} y \rightarrow _$	As $x \rightarrow 3^+ y \rightarrow _$
Does this rational function have a hole?	END behavior of a function	END behavior of a function
If this rational function has a hole, then state it	As $x \rightarrow -\infty$ $y \rightarrow ____$	As x →+∞ y →
State Domain of the Function using one method (On Formative Friday)	State Domain of the Function using a different method (on Formative Friday)	

Only three forms of an answer will get you full credit	Only three forms of an answer will get you full credit	
the statement of a point, the statement of a line, the word NONE	A numerical value, +∞, or -∞	
(this is a section that you will be on SUMMATIVE assessment on Thursday)	(this is a section that you will be on FORMATIVE assessment on FRIDAY)	
$5.k(x) = \frac{5x - 15}{2x + 10}$	Function Behavior from the LEFT of given x values As $x \rightarrow 5^{-}y \rightarrow ___$	Function Behavior from the RIGHT of given x values As $x \rightarrow 5^+ y \rightarrow ___$
X intercept(s)	As $x \rightarrow -5$ $y \rightarrow ____$	As $x \rightarrow -5^+ y \rightarrow ___$
Horizontal asymptote	As $x \rightarrow 3^{-} y \rightarrow _$	As $x \rightarrow 3^+ y \rightarrow ___$
Vertical asymptote	As $x \rightarrow -3^{-} y \rightarrow _$	As $x \rightarrow -3^+ y \rightarrow _$
Does this rational function have a hole?	END behavior of a function	END behavior of a function
If this rational function has a hole, then state it	As $x \to -\infty$ $y \to $	As $x \to +\infty$ $y \to _$
State Domain of the Function using one method (On Formative Friday)	State Domain of the Function using a different method (on Formative Friday)	

Only three forms of an answer will get you full credit the statement of a point, the statement of a line, the word NONE (this is a section that you will be on SUMMATIVE assessment on Thursday)

6.
$$m(x) = \frac{2x^3 - 8x}{x^2 + 3x - 10}$$

X intercept(s) _____

Y intercept _____

(On Formative Friday)

Horizontal asymptote _____

Vertical asymptote _____

Does this rational function have a hole?

State Domain of the Function using one method

If this rational function has a hole, then state it _____

Function Behavior from the LEFT of given x values	Function Behavior from the RIGHT of given x values
As $x \rightarrow -5$ $y \rightarrow ___$	As x → -5 ⁺ y →
As $x \rightarrow -2$ $y \rightarrow \underline{\qquad}$	As $x \rightarrow -2^+ y \rightarrow ___$
As $x \rightarrow 0$ $y \rightarrow$	As $x \to 0^+ y \to _$
As $x \rightarrow 2^{-} y \rightarrow _$	As $x \rightarrow 2^+ y \rightarrow$
END behavior of a function	END behavior of a function
As $x \rightarrow -\infty$ $y \rightarrow ____$	As $x \rightarrow +\infty$ $y \rightarrow ____$

(this is a section that you will be on FORMATIVE assessment on FRIDAY)

Only three forms of an answer will get you full credit

A numerical value, + ∞ , or - ∞

State Domain of the Function using a different method (on Formative Friday)

Only three forms of an answer will get you full credit the statement of a point, the statement of a line, the word NONE (this is a section that you will be on SUMMATIVE assessment on Thursday)	Only three forms of an answer will get you full credit A numerical value, +∞, or -∞ (this is a section that you will be on FORMATIVE assessment on FRIDAY)	
7. $n(x) = \frac{-10x + 5x^2}{4x^2 + 8x}$	Function Behavior from the LEFT of given x values As $x \rightarrow -5^{-} y \rightarrow __\$	Function Behavior from the RIGHT of given x values As $x \rightarrow -5^+ y \rightarrow ____$
X intercept(s) Y intercept	As $x \rightarrow -2^{-} y \rightarrow \underline{\qquad}$	As $x \rightarrow -2^+ y \rightarrow _$
Horizontal asymptote	As $x \rightarrow 0$ $y \rightarrow$	As $x \rightarrow 0^+ y \rightarrow _$
Vertical asymptote Does this rational function have a hole? If this rational function has a hole, then state it	As $x \rightarrow 2^{-} y \rightarrow _$ END behavior of a function As $x \rightarrow -\infty y \rightarrow _$	As $x \rightarrow 2^+ y \rightarrow$ END behavior of a function As $x \rightarrow +\infty y \rightarrow$
State Domain of the Function using one method (On Formative Friday)	State Domain of the Function using a different method (on Formative Friday)	
Only three forms of an answer will get you full credit the statement of a point, the statement of a line, the word NONE (this is a section that you will be on SUMMATIVE assessment on Thursday)	Only three forms of an answer will get you full credit A numerical value, $+\infty$, or $-\infty$ (this is a section that you will be FORMATIVE assessment on FRIDAY)	
8. $p(x) = \frac{x^2 - 10x}{2x^3 - 20x^2}$	Function Behavior from the LEFT of given x values	Function Behavior from the RIGHT of given x values

X intercept(s) _____

Y intercept _____

Horizontal asymptote _____

Vertical asymptote _____

(On Formative Friday)

Does this rational function have a hole?

State Domain of the Function using one method

If this rational function has a hole, then state it _____

Function Behavior from the LEFT of given x values	Function Behavior from the RIGHT of given x values
As $x \rightarrow -10^{-1}$ $y \rightarrow _$	As $x \rightarrow -10^+ y \rightarrow _$
As $x \rightarrow 10^{-} y \rightarrow _$	As $x \rightarrow -10^+ y \rightarrow _$
As $x \rightarrow 0$ $y \rightarrow$	As $x \rightarrow 0^+ y \rightarrow _$
As $x \rightarrow 2^{-} y \rightarrow _$	As $x \rightarrow 2^+ y \rightarrow ___$
END behavior of a function	END behavior of a function
As $x \to -\infty$ $y \to _$	As $x \rightarrow +\infty$ $y \rightarrow ___$

State Domain of the Function using a different method (on Formative Friday)