# Graphing Rational Functions - Example 5
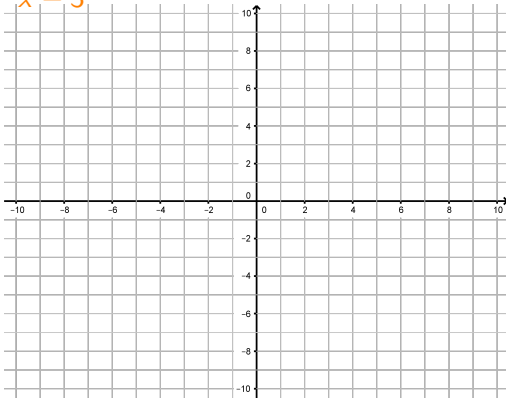
**Example:** Sketch the graph of:
$$f(x) = \frac{3 \cdot x + 6}{x - 3}$$

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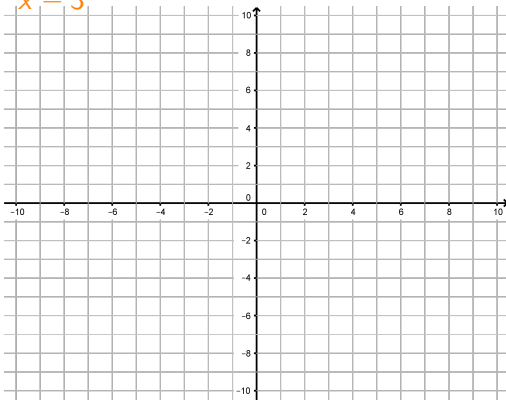$$f(x) = \frac{3 \cdot x + 6}{x - 3}$$

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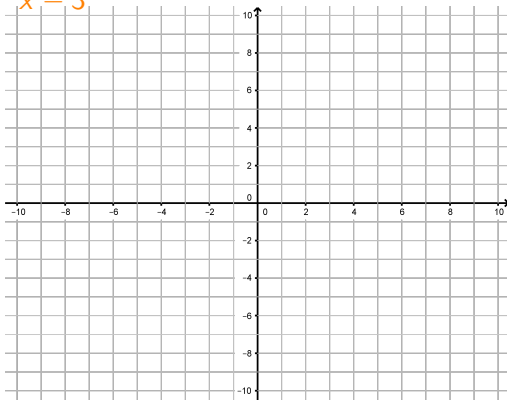The $y-$int

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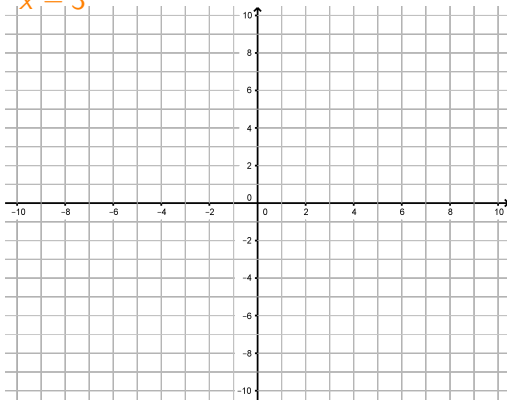**Example:** Sketch the graph of:
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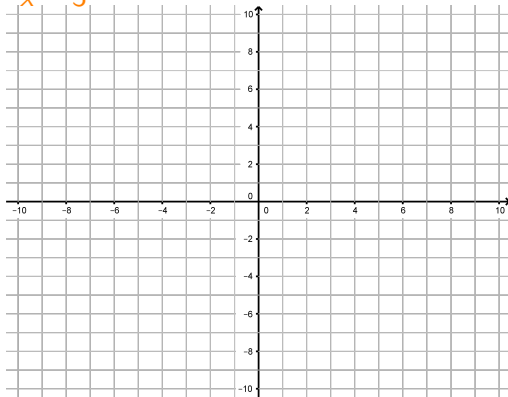$$f(x) = \frac{3 \cdot x + 6}{x - 3}$$

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The End Behavior

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Vertical asymptotes

The End Behavior

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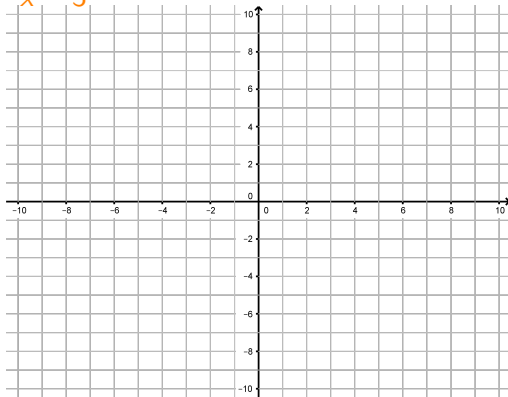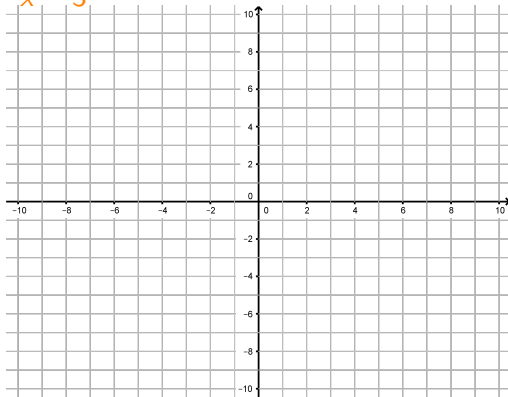$$f(x) = \frac{3 \cdot x + 6}{x - 3}$$

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Vertical asymptotes

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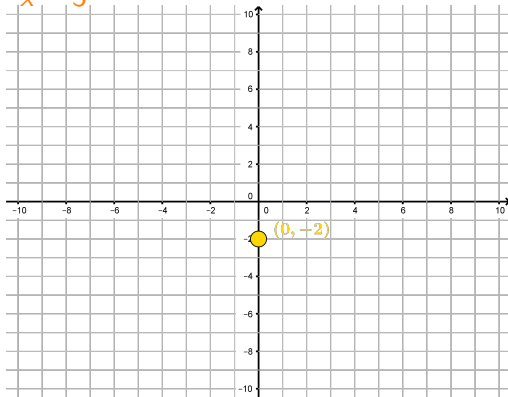**Example:** Sketch the graph of:
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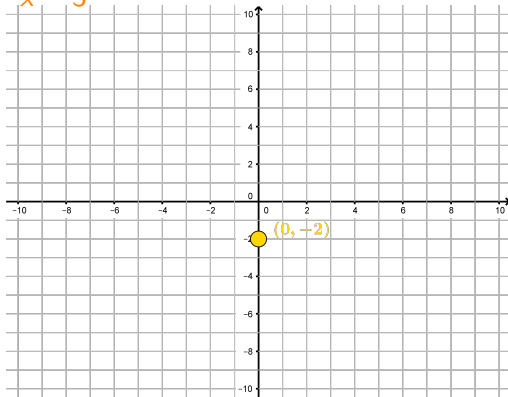**Example:** Sketch the graph of:
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Vertical asymptotes

The End Behavior

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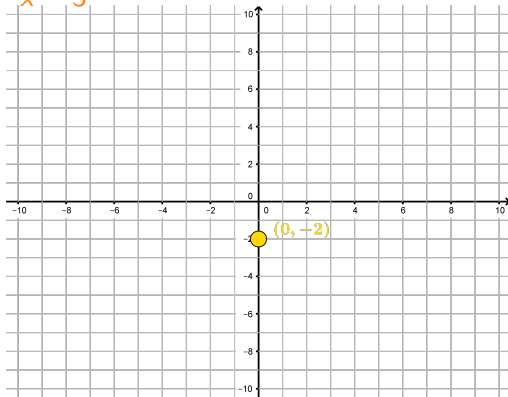**Example:** Sketch the graph of:
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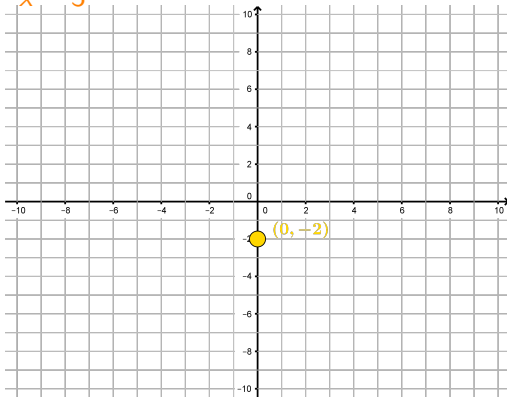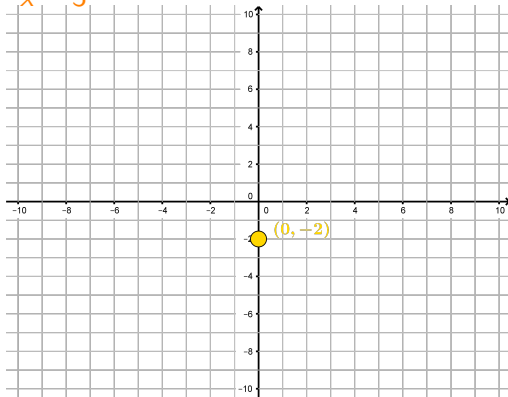
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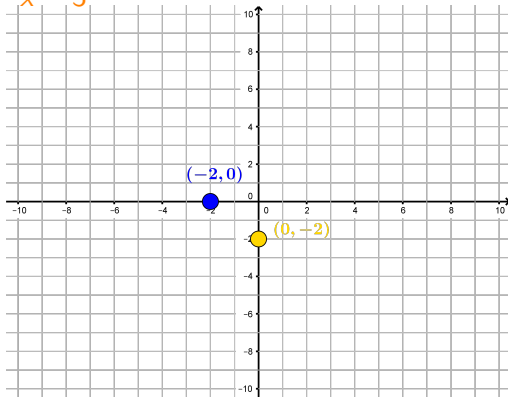
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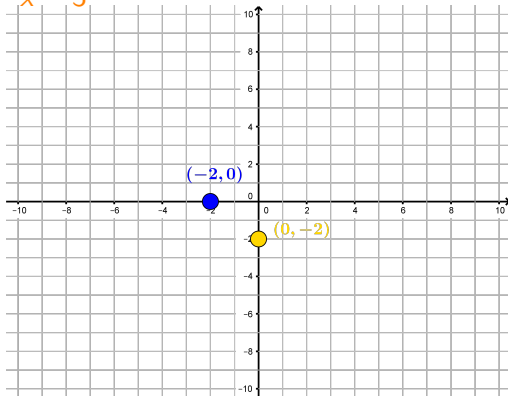
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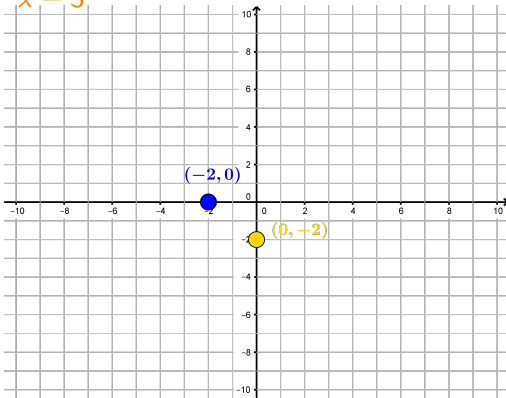
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The End Behavior

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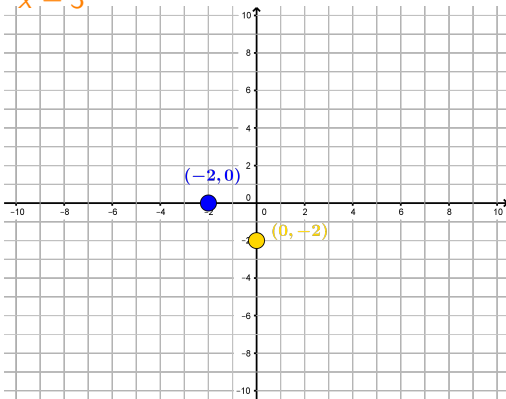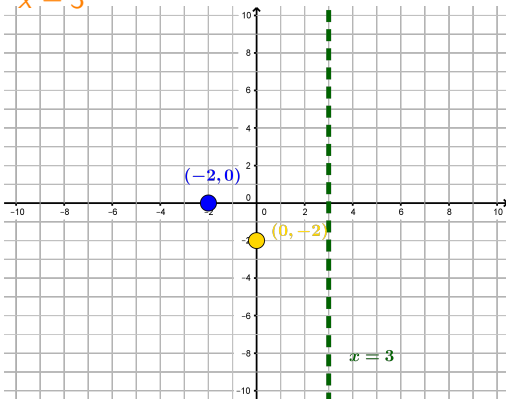
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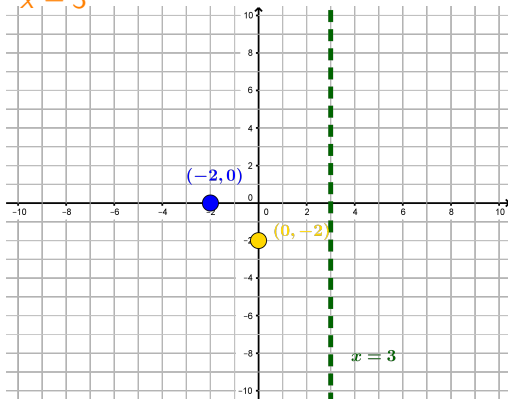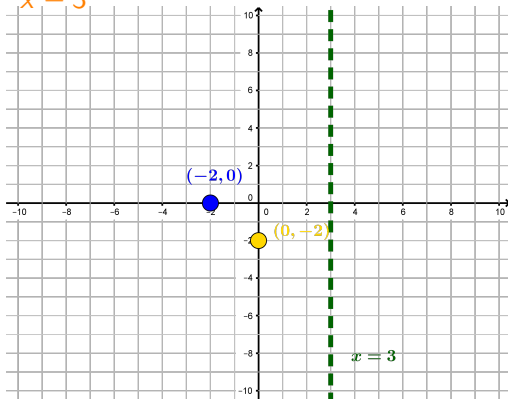
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$(-2, 0)$

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▸ We saw that $\frac{3 \cdot x + 6}{x - 3} \approx \frac{3}{1} = 3$ since $deg\,(3 \cdot x + 6) = deg\,(x - 3)$

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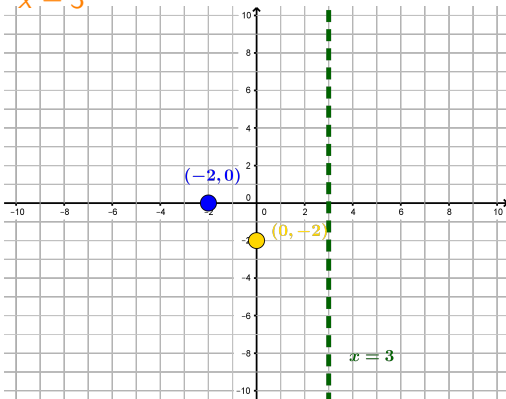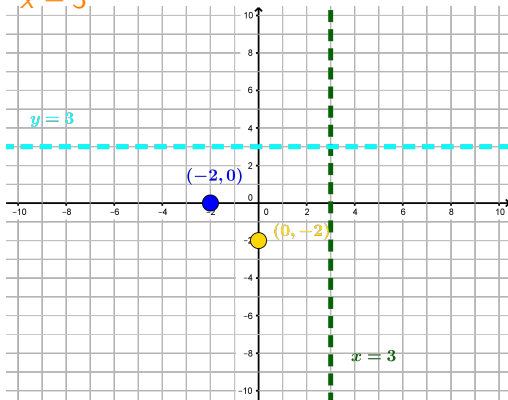
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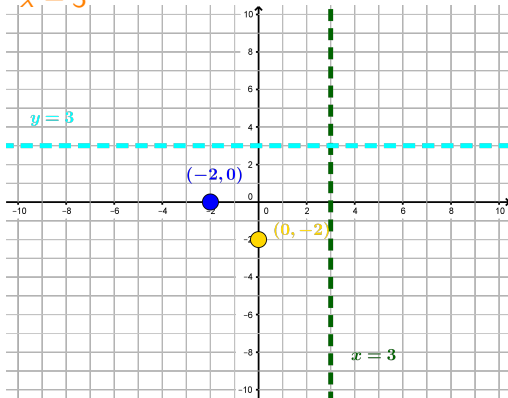▸ We can by solving:
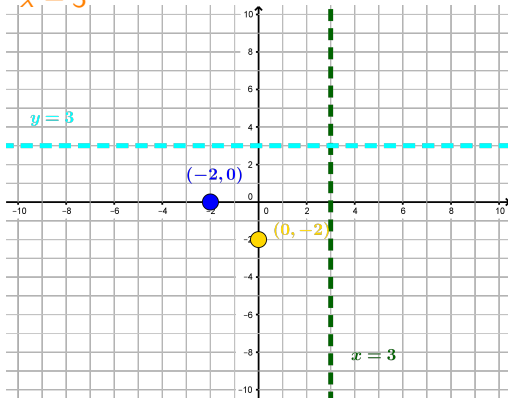
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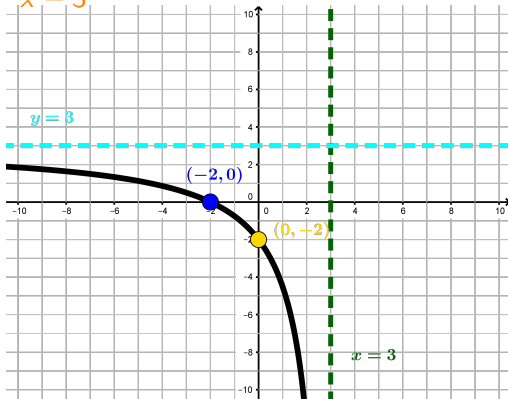▸ We can by solving:

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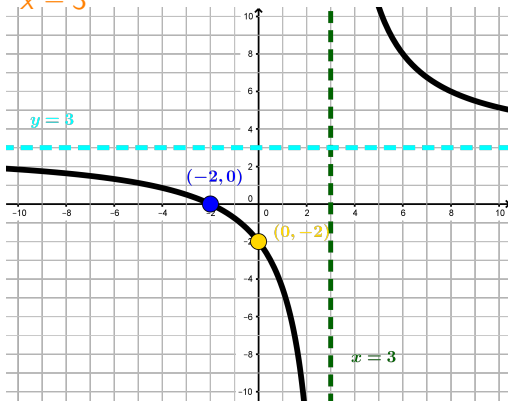
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