**Finding local Extrema and Increasing/Decreasing Intervals**

1. Compute
2. Find critical points, i.e.   
    or does not exist
3. Create a table with and

**Example**: Find all relative extrema for

1. Critical points
2. Setting up the table:

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**Example**: Find all relative extrema for

1. Critical points
2. Setting up the table:

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**Finding Inflection Points and Concavity**

1. Compute
2. Find possible inflection points, i.e.   
    or does not exist
3. Create a table with and

**Example**: Discuss the concavity of

2. ossible inflection points
3. Setting up the table:

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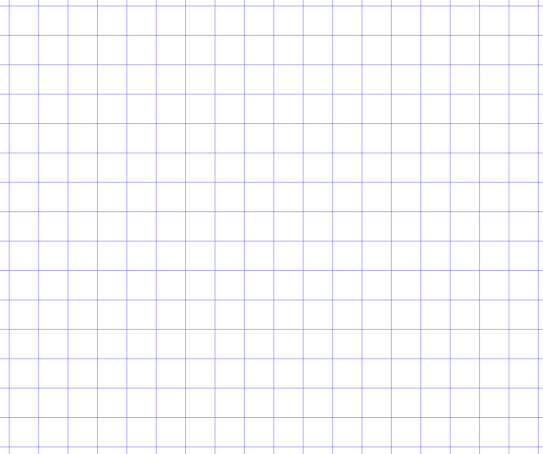
**Example**: Discuss concavity for

2. possible inflection points
3. Setting up the table

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**Curve Sketching**

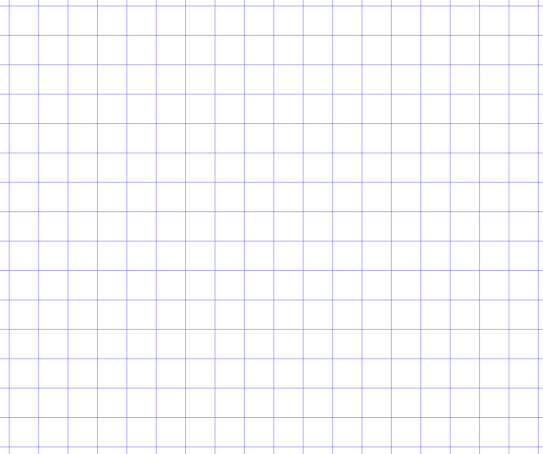
**Example:** Sketch the graph of

1. Domain:
2. Asymptotes:
   1. v.a.
   2. h.a.
4. Critical points:   
   Possible inflection points:
5. Setting up the table

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1. Find zeros
2. Find y-intercept
3. Evaluate f:

**Example:** Sketch the graph of

1. Domain:
2. Asymptotes:
   1. v.a.
   2. h.a.
4. Critical points:   
   Possible inflection points:
5. Setting up the table

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1. Find zeros
2. Find y-intercept
3. Evaluate f: