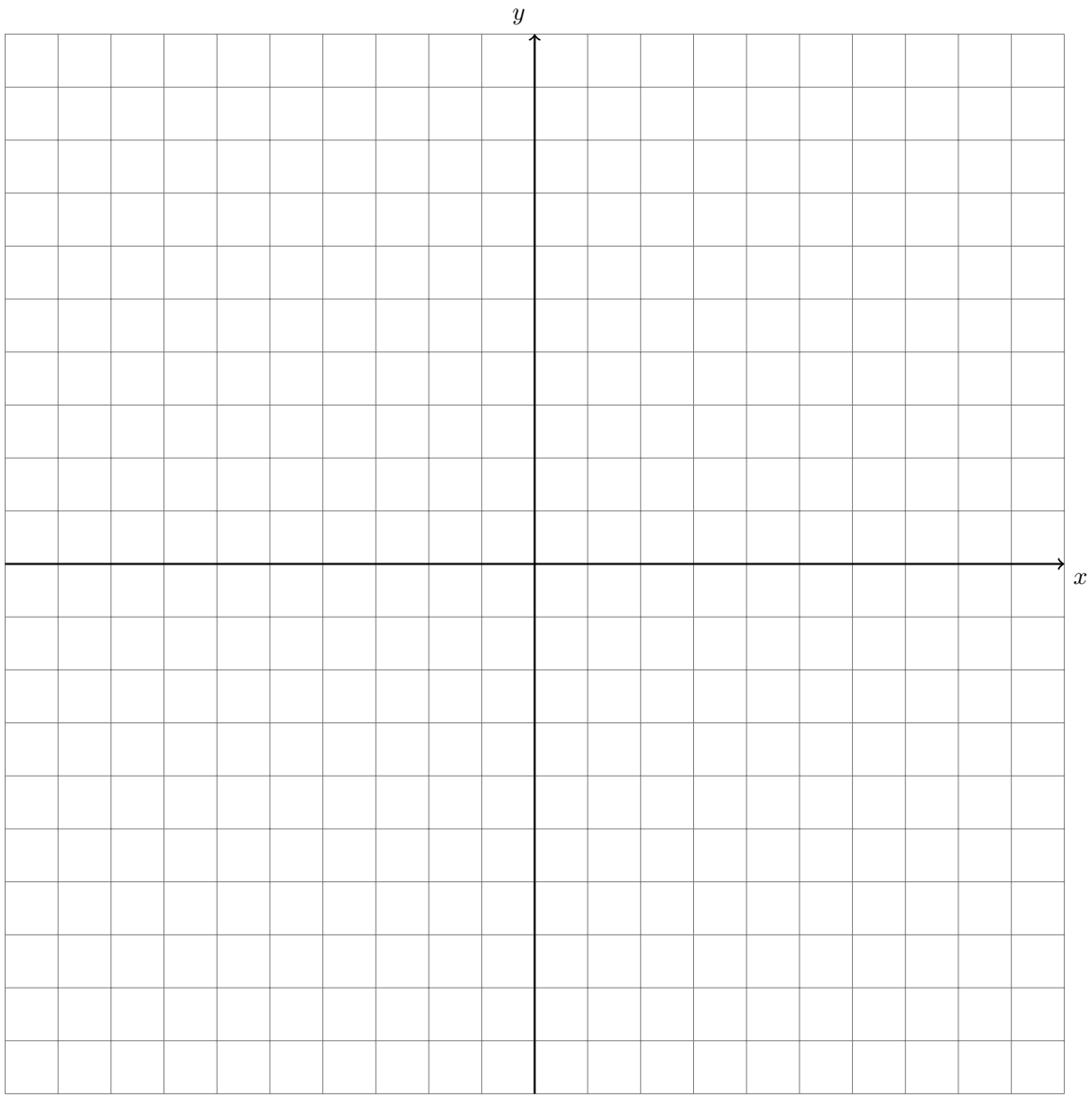
PRECALCULUS I SAMPLE EXAM 1

This practice exam is for review purposes only; the actual exam may differ in format and content. Use it as a study aid, and refer to the syllabus for specific details. Solutions with explanations can be found on my YouTube channel. - Robert Pearce

Name:_____

1. Plot the points: $(-3, 6), (-2, 0), (-2, -5)$



2. Find the distance between: $(0, 0)$ and $(1, 4)$

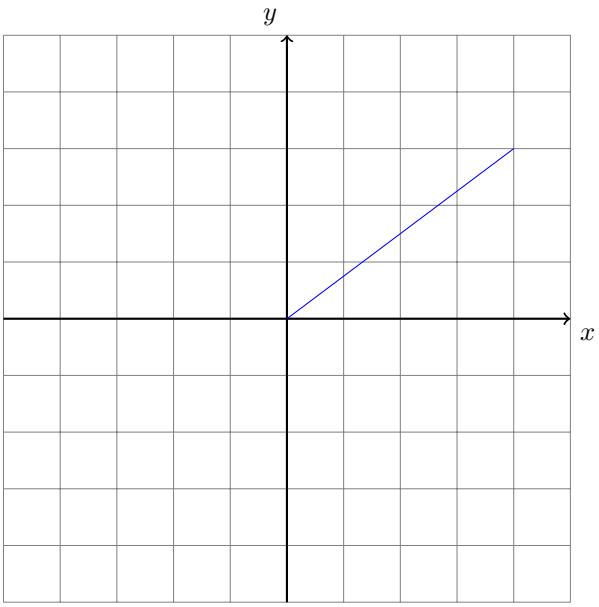
3. Find the midpoint of the line segment with points: $(3, -3)$ and $(7, 5)$

4. Solve: $13 = 5 + 8(x - 18)$

Cont.

5. Find an equation of a line passing through: $(-3, 6)$ and $(-1, 7)$

6. Find the slope of the line.



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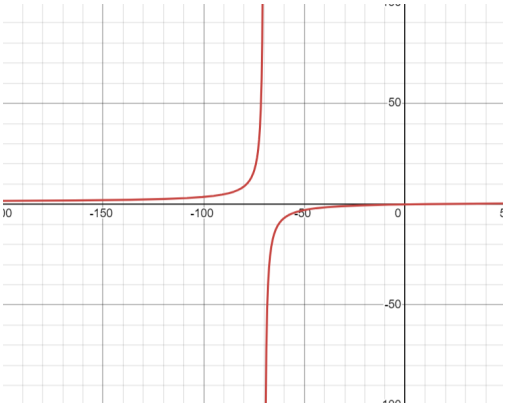
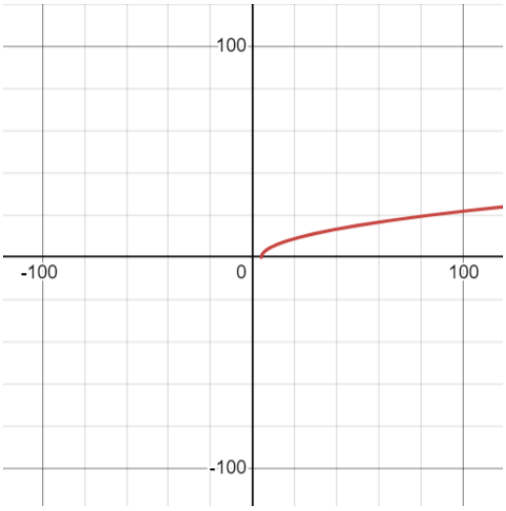
7. Find an equation of a line that is perpendicular to the line $x - 9y = 4$; containing the point $(0, 3)$

8. Determine the domain of: $\frac{x-8}{x+70}$



9. Determine the domain of: $\sqrt{5x - 20}$



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10. Find the product: $(3x - 5)(7x + 6)$

11. For the function $f(x) = 4x^2 + 3x - 4$ find:

a) $f(0)$

b) $f(2)$

c) $f(-2)$

d) $f(-x)$

Cont.

e) $-f(x)$

f) $f(x+1)$

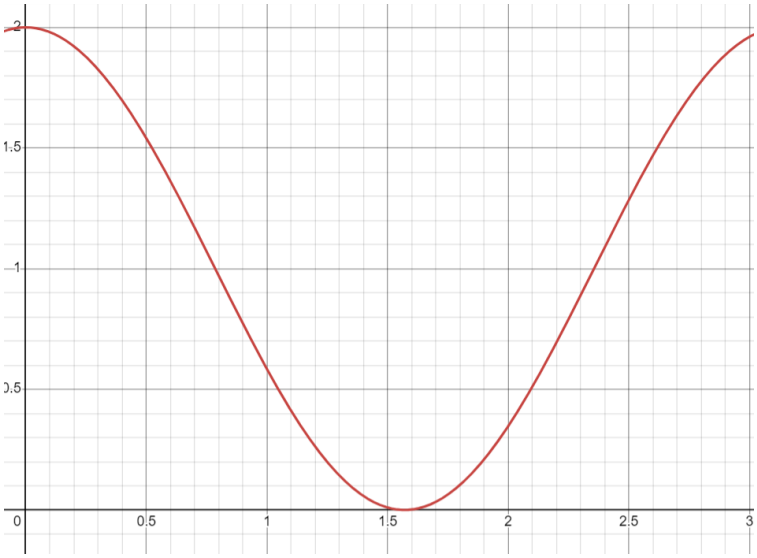
g) $f(5x)$

h) $f(x+h)$

12. Find the difference quotient of $f(x) = x^2 - 4x + 3$

Cont.

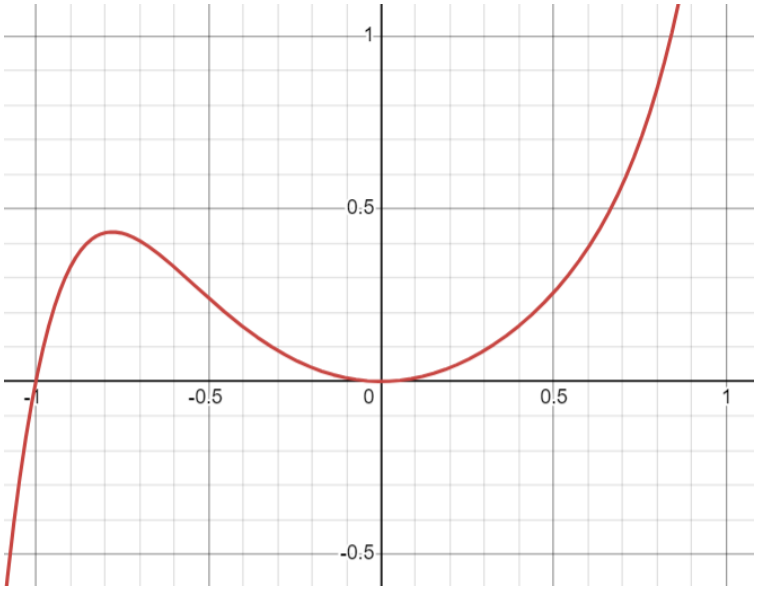
13. Look at the graph below and determine the intervals where the function is increasing and decreasing.



State the intervals where the function is:

- **Increasing:** $(\ldots, \ldots) =$
- **Decreasing:** $(\ldots, \ldots) =$

Look at the graph below and use the vertical line test to determine if the graph represents a function.



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14. Solve the following inequality: $|2x - 5| \leq 7$

The End.