

Precalculus Snow Day Assignment #1
???

Name _____

Show All Work.

1. State the domain of $f(x) = \sqrt{49 - x^2}$

1. _____

2. Simplify: $\frac{3x^2 - 14x - 5}{x^2 + 4x - 12} \cdot \frac{2x - x^2}{3x^3 + x^2}$

2. _____

3. Write the equation of the line through the points $(-2, -7)$ and $(1, -1)$ in standard form.

3. _____

4. Sketch the graph of $y = 1 + 3\sqrt{2 - x}$

4. _____

5. Find the inverse of $f(x) = 1 + (x - 3)^3$

5. _____

6. Sketch the graph of $f(x) = -\sqrt{3+x}$

6. _____

7. Solve: $x^3 + 2x^2 - 7x - 14 = 0$

7. _____

8. Multiply: $(3x + 2)^3$

8. _____

9. Factor: $27x^3 + 64$

9. _____

10. Simplify: $\frac{\left(\frac{1}{x-2} + \frac{5}{x^2+x-6}\right)}{\left(\frac{x^2-64}{x^2+2x-3}\right)}$

10. _____