Topic 5 Remediation- Algebra 2 **Name:** _____

Pearson EnVision: Radical Functions - *http://virtualnerd.com/algebra-2/all/*

5-1 Nth roots, radicals, and rational expressions	**5-2** Properties of Exponents and Radicals	**5-3** Graphing Radical Functions	**5-4** Solving Radical Equations	**5-5** Function Operations	**5-6** Inverse Relations and Functions

5-1

Identify the radicand and the index. $\sqrt[5]{2x^2}$ Radicand: _____ Index: _____	Simplify the radical expression. $\sqrt[4]{162x^8y^{12}p^4}$ Answer: _____
Write each expression in radical form. $(3x)^{\frac{(3)}{(5)}}$ Radical Form: _____	Solve the equation. $3x^5 - 250 = \ -154$ Solution: _____

5-2

Find the reduced radical form of the expression: $(4x^{2/3})(5x^{4/9})$ Reduced Radical Form: _____	Rationalize the denominator. $\frac{3}{1-\sqrt{5}}$ Answer: _____
Find the reduced radical form of the expression: $3\sqrt{2} + 5\sqrt{72} - 8\sqrt[3]{16}$ Reduced Radical Form: _____	Find the product. Simplify your answer. $(3 + \sqrt{5})\ (4 - \sqrt{8})$  Product: _____

5-3

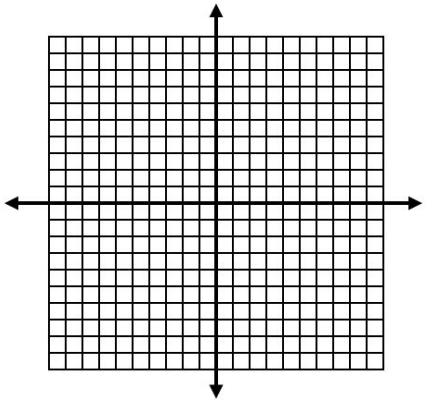
$f(x) = -\sqrt[3]{x-2}+1$

Reflection: Yes or No
Vertical Shift: _____
Horizontal Shift: _____
Stretch or Shrink: _____

Domain: _____

Range: _____

x	y



5-4 : Solve each equation. Check for extraneous solutions.

$\sqrt[3]{x-4}+5=7$

Solution(s): _____

$\sqrt{4x+8}=x+3$

Solution(s): _____

5-5 $f(x)=2x+3$ $g(x)=x^2+1$ **Please circle or box in final answer.**

$(f+g)(x)$	$(g\circ f)(3)$	$g(2)\cdot f(4)$	$(f\circ g)(x)$	$(f\cdot g)(x)$

5-6

Find the equation of the inverse. State the domain of the inverse.
$f(x)=3x+2$

Inverse g(x): _____

Use composition to show that $f(x)$ *and* $g(x)$ are inverses.