Honors PC A Name _____

1.4 Domain & Range Practice for Radical/Rational Functions

Examples (done together as a class): Sketch based on transformation and find domain & range.

$f(x) = \sqrt{x-5} + 2$

$f(x) = -2\sqrt{5x+9} - 8$

Find the domain and range for the following radical functions. Use interval notation.

1. $f(x) = 4\sqrt{x-8} + 3$

2. $f(x) = -\sqrt{x+2}$

3. $f(x) = 5 + 2\sqrt{x-6}$

4. $f(x) = 5\sqrt{-3x+9} - 1$

5. $f(x) = \sqrt{-2x+7}$

6. $f(x) = \sqrt{x^2-6}$

Examples (done together as a class):

$f(x) = \frac{1}{x-8} + 4$

$f(x) = \frac{-5}{x+10} - 7$

Find the domain and range for the following rational functions. Use interval notation.

1. $f(x) = \frac{1}{x+3} - 4$

2. $f(x) = \frac{-4}{x-1}$

3. $f(x) = 4 + \frac{-6}{x-7}$

4. $f(x) = \frac{1}{6x-12} + 5$

5. $f(x) = \frac{-7}{5x+3}$

6. $f(x) = \frac{1}{x^2-5} + 9$