Name _____   Period_____   Date _____

Ms. Schmidt   Pre-Calculus

Weekly Homework Quiz 4

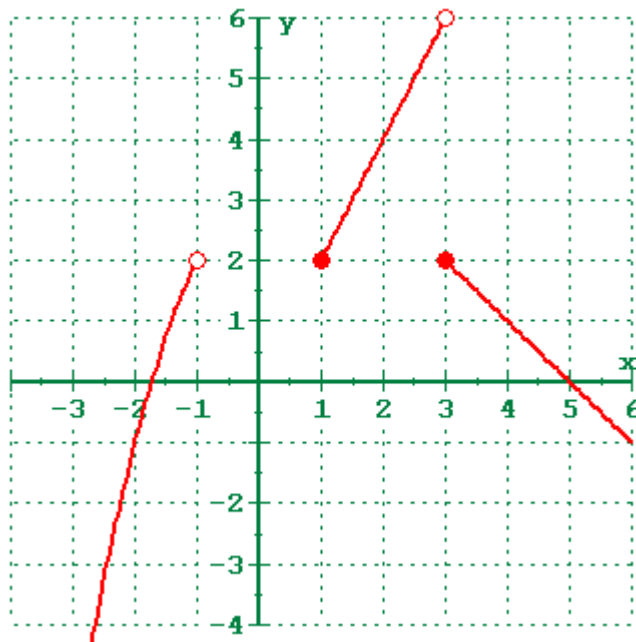This is a weekly homework quiz that will be given every week and is due back the following Monday.

This quiz is due back: **October 23rd , 2017**

To receive full credit, all work must be shown. Any correct answer without work shown will receive only 1 point. Each question is worth 4 points.

1) Find the middle term in the expansion $(2y^3 - 4)^6$

2) Factor completely: $u^4 - 7u^2v^2 + 6v^4$

3) Find the domain and range of the graph [in interval notation]:

4)

    a. Algebraically, find the inverse of $f(x) = \sqrt[3]{x-5} - 4$ using function notation.

    b. Algebraically, find the domain of $h(x) = \frac{1}{\sqrt{2x-8}}$. Express your answer in interval notation.

5) Find the difference quotient, $\dfrac{f(x+h) - f(x)}{h}$, $h \neq 0$, in simplest form for $f(x) = 2x^2 - 3x + 1$.