Math 3
Chapter 6 Review Name:_____

1. Solve the Three questions using the table at the bottom.
   a) Tell whether the data shows direct variation or inverse variation and explain your reasoning.

   b) Find the equation that relates x and y

   c) Find the value of y when x= 6

x	3	12	15	20
y	4	1	.8	.6

2. Answer the following questions using the following function below.
   a) Find the asymptotes of the function

   b) Find the Domain and the range

   c) Graph the function

$$g(x) = \frac{5}{x+3} - 1$$

3. GRAPH and Find the asymptotes of this function and find the domain and the range of the function.

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

4. Simplify

a) $\frac{5}{6x} + \frac{1}{4}$ b) $\frac{2}{5x} - \frac{6}{(x-2)}$

5. Simplify

$$\frac{5x}{2x+8} \div \frac{2x-10}{x^2+2x-8}$$

6. Simplify

$$\frac{x^2-4x}{x-5} \bullet \frac{x^2-4x-5}{x}$$

7. Simplify : $\frac{8x^6y^2}{16xy^2} \bullet \frac{15x^2y^6}{5xy^3}$

8. $\frac{\frac{5}{2x+10}}{\frac{1}{x+5}+\frac{2}{x}}$ (Simplify)

9. What is the Common Denominator?

$$\frac{x^2-4}{x^2+3x-10} - \frac{x+5}{x+2}$$

10. Solve

$$\frac{7}{x+3} + \frac{4}{x} = \frac{x+20}{x^2-x}$$

12. Find the INVERSE

$$f(x) = \frac{3}{x-6}$$