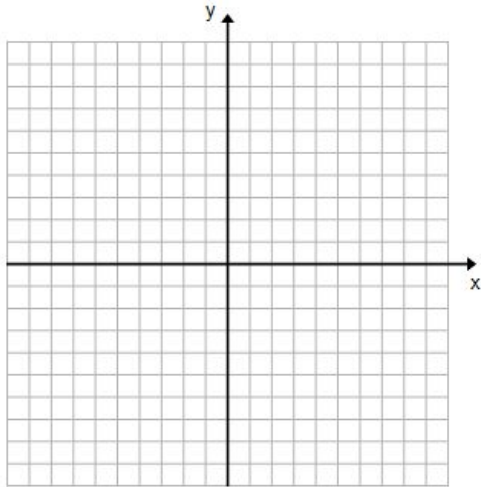
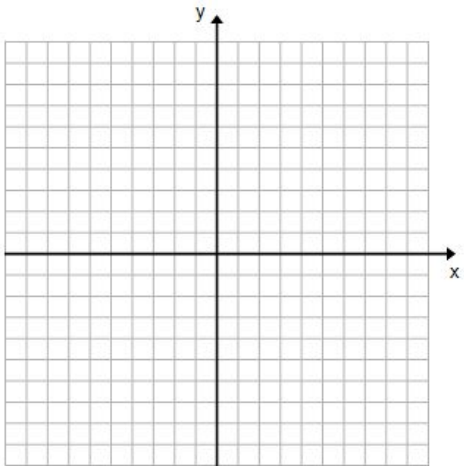
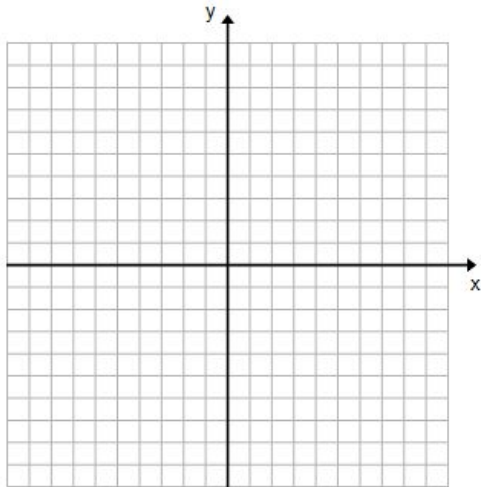
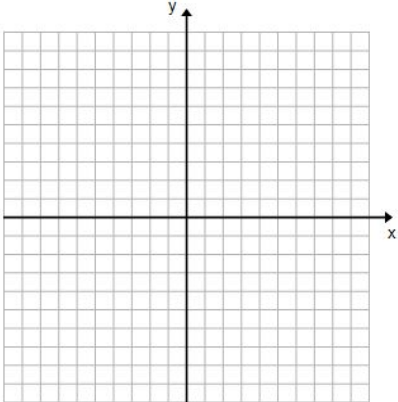
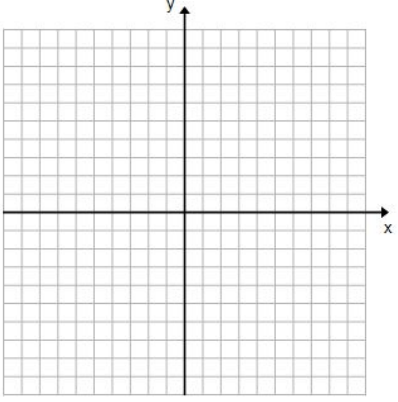


Math 1050 Assignment 4.1	Name
<p>1. Graph and label the following;</p> <p>a. <math>f(x) = 8(\frac{1}{2})^x</math></p> <p>b. <math>g(x) = -(\frac{1}{2})^x</math></p> <p>c. <math>h(x) = 8(2)^x</math></p> <p>d. <math>j(x) = 2^{x+5}</math></p> <p>e. <math>k(x) = 7 - 2^x</math></p>	
<p>2. Graph</p> <p>f. <math>f(x) = 4^x</math></p> <p>g. <math>g(x) = 4^{-x}</math></p> <p>h. <math>h(x) = 2(4)^x</math></p> <p>i. <math>j(x) = 4^{x-3} - 5</math></p> <p>j. <math>k(x) = 2 - 4^x</math></p>	
<p>3. Graph and label the following.</p> <p>a. <math>f(x) = 2^x - 3</math></p> <p>b. <math>g(x) = -3^x</math></p> <p>c. <math>h(x) = 3 - 10^{x-1}</math></p> <p>d. <math>j(x) = 3 - (\frac{1}{5})^x</math></p> <p>e. <math>k(x) = 1 - 3^{-x}</math></p>	

<p>4. A bacteria culture contains 1500 bacteria initially and doubles 3 times an hour. Equation:</p> <p>Find the bacteria after 24 hours.</p>	<p>5. A certain breed of mouse was introduced into a small island and it is growing at a rate of 15% every year. If the initial population was 20 mice, how many mice will there be in 12 years?</p>
<p>6. You purchase a car for \$12,000. You make payments monthly so the interest is compounded monthly. You get a rate of 3.5%. If you are to pay it off in 5 years, how much is the car really costing you?</p> <p>What would your monthly payments be?</p>	<p>7. You have 15mg of a radioactive substance that has a half life of 11 days. How much of the substance will be left in 4 months?</p>
<p>7. Graph the following:  <math>f(x) = \frac{4-3x}{x+7}</math></p> <p>VA HA x-intercepts y-intercepts</p> <p>Transformation form:</p>	
<p>8. Graph the following:  <math>f(x) = \frac{2x^2+2x-4}{x^2+x}</math></p> <p>VA HA x-intercepts y-intercepts</p> <p>Slant asymptote</p>	

9. Graph the following:

$$f(x) = \frac{x^2+5x+4}{x-3}$$

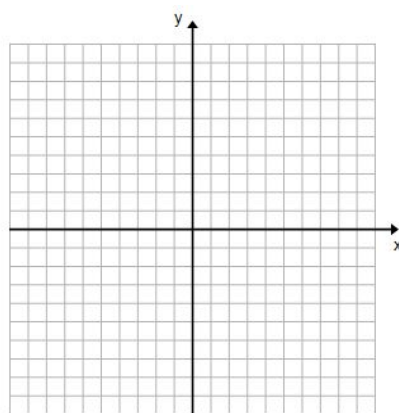
VA

HA

x-intercepts

y-intercepts

Slant asymptote



10. Graph the following:

$$f(x) = \frac{2x^2-1x-10}{x^2-2x-8}$$

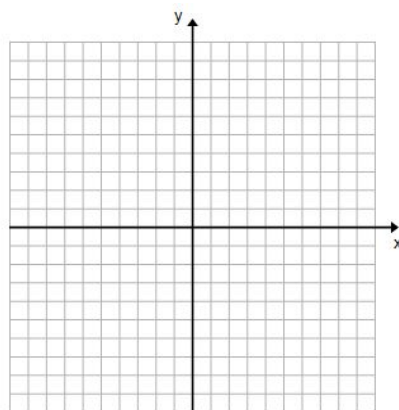
VA

HA

x-intercepts

y-intercepts

Slant asymptote



11. Graph the following:

$$f(x) = \frac{3x^2+6x-24}{x^2-4x+4}$$

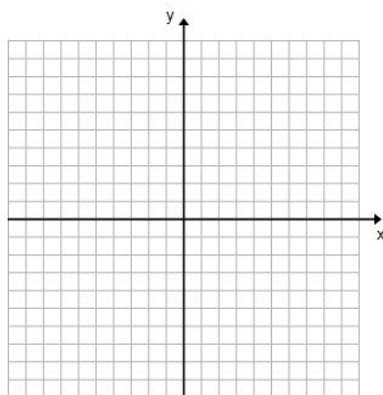
VA

HA

x-intercepts

y-intercepts

Slant asymptote



11. Graph the following:

$$f(x) = \frac{10}{x^2 - 6x + 9}$$

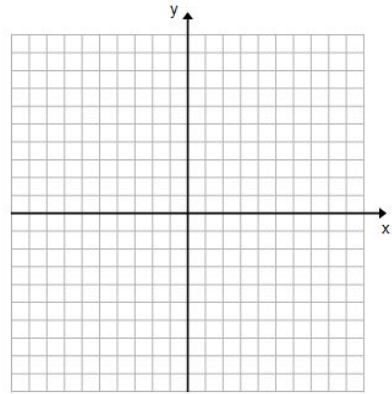
VA

HA

x-intercepts

y-intercepts

Slant asymptote



12. List the domains for the following:

a.  $f(x) = \frac{3}{7-2x}$

b.  $g(x) = \sqrt{4-5x}$

c.  $h(x) = \sqrt{x+2} + \frac{1}{x}$

13. Graph the following using a table:

$$f(x) = |x^2 + x - 5|$$

