

DAY 1:

1) Describe the population and its behavior given by the function: $C(t) = 150(1.045)^t$

Write the function above in the form: $f(t) = ae^{kt}$.

2) There is a population of 23,450 insects, infected by a disease causing the population to halve every 6 months. Write an equation representing this scenario.

HINT: Write the equation if the population halves annually then modify this equation.

3) Solve each equation for all solutions: A) $x^2 = 3$ B) $\tan^2(\theta) = 3$

4) Given coordinate points (p, q) & (v, w) write a linear equation in point-slope form.

5) Solve for x: $\ln(x) - \ln(x+3) = 1$

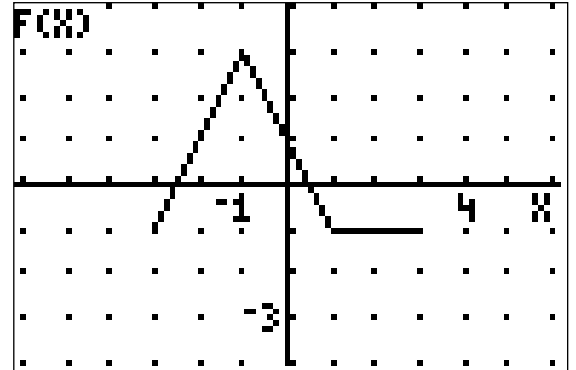
6) Find the inverse of $f(x) = x^2 + 2x - 3$. Hint: vertex form

7) Given the graph of $f(x)$, identify:

$f(-1)$

Domain:

Range:



Under the transformation given by

A) $h(x) = \frac{1}{3} f\left(\frac{1}{2}(x+1)\right) - 4$

Identify $h(-1)$:

Domain of $h(x)$:

Range of $h(x)$:

B) $g(x) = 2f(3(x-4)) + 5$

Identify $g(-1)$

Domain of $g(x)$:

Range of $g(x)$: