YOU NEED GRAPH PAPER.
p. 414 #1 (no decimals!),
         3(no decimals! Do not do #3e), 4abc
p. 415 #8bc, 9a (make a graph on graph paper!),
         9b
p. 416 #1, 3a (do not do a sketch, rather,
make a table of values and make a graph on graph paper!)
p. 417 #7bce
(Study for the **Unit Test Thursday)**

Things to review/be able to do for the Unit Summative

Know the 5 exponent laws.
 Go over your notes, and redo both quizzes again, until perfect.

Be able to calculate y-ratios, as well as first differences and second differences.
       Know what the results of each mean!

Be able to identify the type of relation by looking at the equation.

Be able to sketch an exponential relation using a table of values.
(both a growth curve and/or a decay curve. Don't forget the asymptote.)

 Be able to write an exponential equation in the form y=a(b)^x ,
 to model a situation, when given the information to find "a" and "b".
              (for example, a population question)

Understand "half-life", and be able to calculate the half-life of a substance.

Wawa 843   growth 3%

$$y = 843(1.03)^x$$

$100\% + 3\%$

$= 103\%$

$= 1.03$

p.414 Single power then evaluate

1a) $6^2 \times 6^3$

$= 6^{2+3}$

$= 6^5$ ✓

$= 7776$ ✓

b) $(-2)^2 \times (-2)^4$

$= (-2)^{2+4}$

$= (-2)^6$ ✓

$= +64$ ✓

c) $\dfrac{5^{10}}{5^7}$

$= 5^{10-7}$

$= 5^3$ ✓

$= 125$ ✓

$\dfrac{5^{10}}{5^2}$

$= 5^{10 \cdot 2}$

$= 5^8$

d) $\left(\dfrac{1}{3}\right)^3 \times \left(\dfrac{1}{3}\right)^3$

$= \left(\dfrac{1}{3}\right)^{3+3}$

$= \left(\dfrac{1}{3}\right)^6$ ✓

$= \dfrac{1^6}{3^6}$

$= \dfrac{1}{729}$ ✓

e) $\left(10^4\right)^2$

$= 10^{4 \times 2}$

$= 10^8$ ✓

$= 100\,000\,000$ ✓

f) $\left[(-7)^2\right]^2$

$= (-7)^{2 \times 2}$

$= (-7)^4$ ✓

$= 2401$ ✓

g) $\dfrac{3^8}{3^5}$

$= 3^{8-5}$

$= 3^3$ ✓

$= 27$ ✓

h) $\left(-\dfrac{1}{2}\right)^2 \times \left(-\dfrac{1}{2}\right)^3$

$= \left(-\dfrac{1}{2}\right)^{2+3}$

$= \left(-\dfrac{1}{2}\right)^5$ ✓

$= \dfrac{(-1)^5}{(2)^5}$

$= \dfrac{-1}{32}$ ✓

3. Evaluate

a) 7^0

$= 1$

b) 5^{-1}

$= \left(\frac{1}{5}\right)^1$

$= \frac{1}{5}$

c) 8^{-3}

$= \left(\frac{1}{8}\right)^3$

$= \frac{1}{8^3}$

$= \frac{1}{512}$

d) $\left(\frac{1}{50}\right)^0$

$= 1$

e) $\left(\frac{2}{3}\right)^{-2}$

$= \left(\frac{3}{2}\right)^2$

$= \frac{3^2}{2^2}$

$= \frac{9}{4}$

f) $4^{-2} \times 4^5$

$= 4^{-2+5}$

$= 4^3$

$= 64$

g) $\frac{7^2}{7^3}$

$= 7^{2-3}$

$= 7^{-1}$

$= \left(\frac{1}{7}\right)^1$

$= \frac{1}{7}$

h) $\left[(-3)^2\right]^{-1}$

$= (-3)^{2\times(-1)}$

$= (-3)^{-2}$

$= \left(\frac{1}{(-3)}\right)^2$

$= \frac{1}{(-3)^2}$

$= \frac{1}{9}$

i) $\frac{1}{2^{-3}}$

$= \left(\frac{2}{1}\right)^3$

$= 8$

j) $\frac{1}{5^{-1}}$

$= \left(\frac{5}{1}\right)^1$

$= 5$

i) $\frac{1}{2^{-3}}$

$= \frac{1}{\left(\frac{1}{2}\right)^3}$

$= \frac{1}{\frac{1}{8}}$

$= 1 \div \frac{1}{8}$

$= 1 \times \frac{8}{1}$

$= 8$

p.415 #8 $P = 1250(1.013)^n$

$y = a(b^x)$

a) current population is 1250

b) $P = 1250(1.013)^5$

$=$

$100\% + (\quad)\%$

$= 1.013$

if decreasing by 1.3% $= 101.3\%$

$100\% - 1.3\%$ 1.3%

$= 98.7\%$

$= 0.987$ $P = 1250(0.987)^n$