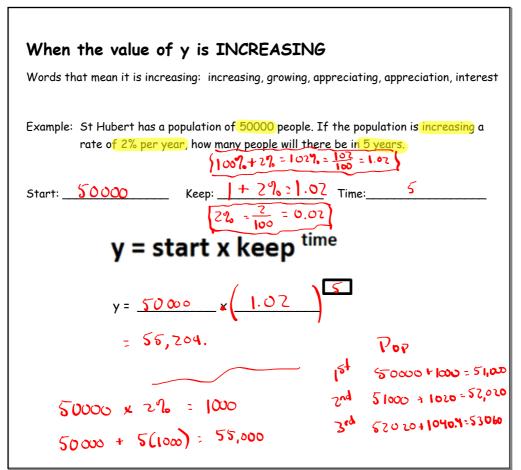
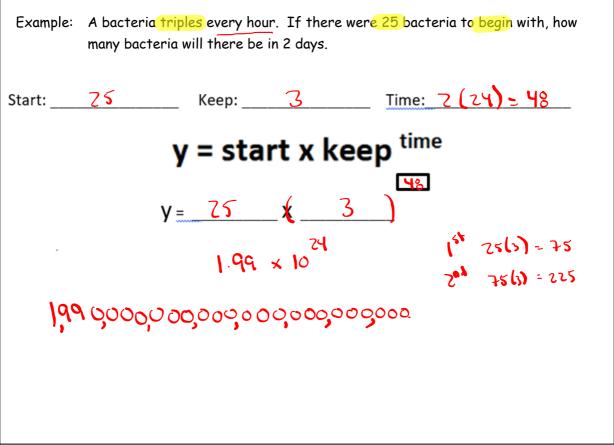


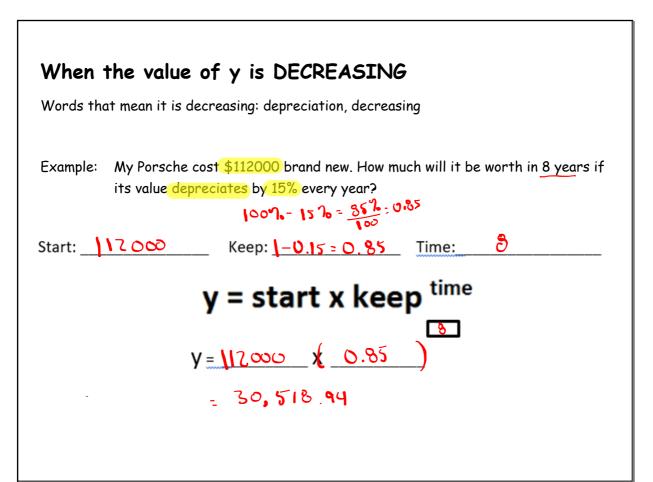
Dec 14-12:03 PM

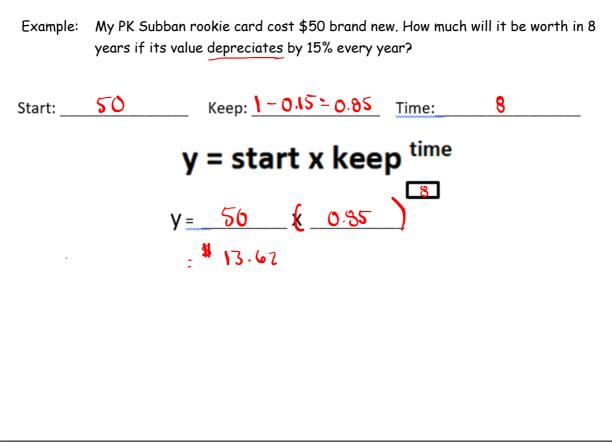


Dec 15-10:01 AM



Dec 15-10:04 AM

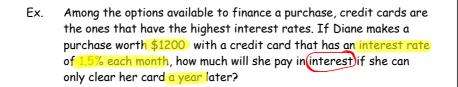




Dec 15-10:06 AM

Ex. Each year the frog population of a small wooded area declines by
5% in contrast to the previous year. If this wooded area has
2000 frogs, how many frogs will be present in 10 years from now?
S: 2000
K:
$$1-0.05 = 0.95$$

T: 10
 $y_{-2006}(0.95)^{10}$
 $= 1193$.



$$S: |200$$

$$K: 1+1.57 = |+ 0.015 \pm 1.015$$

$$1007. +1.57 = \frac{101.5}{100} = 1.015$$

$$T: 147 \times 12 = 12 \text{ months}$$

$$Y = 1200 (1.015)^{12}$$

$$= 1434.74$$

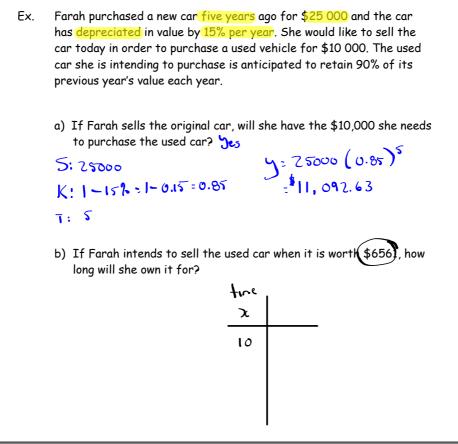
$$1 + 1200 = 1234.74$$

Dec 15-10:23 AM

Ex. Samuel is looking at making some investments to save for the future.
His investment advisor has suggested a Mutual Fund that grows at an
annual interest rate of 8% per year. If Samuel invested \$5000 in the
fund, t
a) How much would his investment be worth after 5 years?
b) How long would it take Samuel's investment to double in value?
Filo poo
(a) S: 5000
K: 1+8% = 1+008 = 1.08 (100% + 8% = 108% = 1.08)
T: 5

$$\int = 5tart (keep)$$

 $= 5tart (keep)$
 $= 5000 (1.08)$
K: 1.08
 $\int = 5000 (1.08)$
T: X
 $\int = 1000 (1.08)$
 $\int = 7000 (1.08)$
 $\int = 7346.64$
b) S: 5000
K: 1.08
 $\int = 5000 (1.08)$
 $\int = 7346.64$
 $\int = 100364.65$
 $g = 9 gears$



Dec 15-10:38 AM

Ex. If the population of rabbits doubles every 4 months, when will there be 5000 rabbits if there were only 2 rabbits.

 A community of 90 penguins increase in population by 4% per year. Which of the following equations could be used to determine the population in the future?

Dec 16-4:27 PM

2. Jim bougt a cottage a few years ago. He has been analyzing the water in the well every year.

 $f(x) = 16 (1.5)^{x}$

In 2012, there were 54 bacteria. In what year will there be more than 200 bacteria for the first time?

3. A lab technician notes that the number of type A bacteria doubles every hour whereas the number of type B bacteria triples every hour. At the outset there are 1000 of type A bacteria and 500 of type B bacteria. Which of the two bacteria will be more numerous after five hours?

Dec 16-4:31 PM

4.