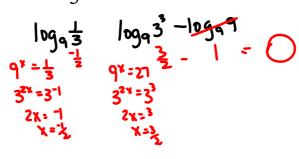
Warm Up - Solve #1-4 with a calculator

1)
$$\ln (2x-3)=1$$
 $e'=2x-3$
2) $12=\frac{(0^{x+5})}{19=10^{x+5}}-7$
 $19=\frac{(0^{x+5})}{19=10^{x+5}}$
3) $e^{2x}-2=7$
 $19=\frac{(0^{x+5})}{19=10^{x+5}}$
4) You invest \$24,900 in an account which is compounded continuously at a rate of 8.3% per year. What will be the estimated value of your e^{2x} investment in 4 years?

1091019 = X+5 X= 371 2

estimated value of your nvestment in 4 years?

5) Evaluate: NO CALCULATOR
$$\log_9 \frac{1}{3} + 3\log_9 3 - \log_9 9$$
 24900c. 34704.45



Mar 16-10:49 AM

CHECK HW 8.6 Part 1 p. 472

1. ln 125

2. ln 18

3. ln 4

6. ln 1

- 15. 0.14
- 19. +/- 11.59
- **21.** ±2.241 ^{23.} 2.9 25. 2.4
- 27. 1.24

32. 2

33. 10

- **34.** 10
- **35.** 0

- **36.** $\frac{1}{4}$
- **55.** x = 542.31 **56.** x = 1 **58.** x = 81.29

Word Problems involving Logs

Mar 12-10:43 AM



Move picture for answer. $A = P(1 \pm r)^{4}$ $A = 250 \qquad r = .32$ $P = 800 \qquad t = ?$

What variable in the equation are you trying to find?



The population of Boringville is 800 dull folks. The number of residents is decreasing at a rate of 32% per year. How many years will it take before the number of inhabitants is 250 people?

250 =
$$800(1-32)^{t}$$

 $\frac{250}{800} = \frac{800}{800}(-13)^{t}$
 $0.3125 = .18^{t}$
 $109.18.3125 = t$
 $t \approx 3 years$

Feb 10-9:43 AM

An initial investment of \$200 is worth \$315.24 when the interest rate is 6.7% per year, and not withdrawing any money. How long has the money been invested?

A: 315.24 C: 2057

A = 315.24
$$\Gamma$$
 = .067

P = 200 ξ : ?

315.24 = 200 (1 + .067)

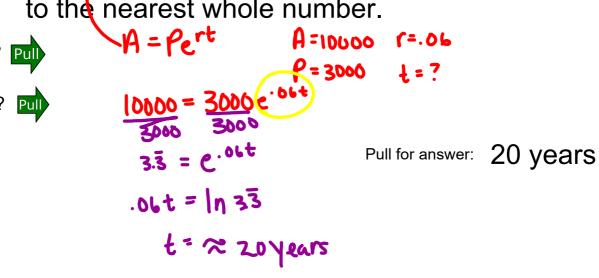
315.24 = $\frac{200}{200}$ (1.067)

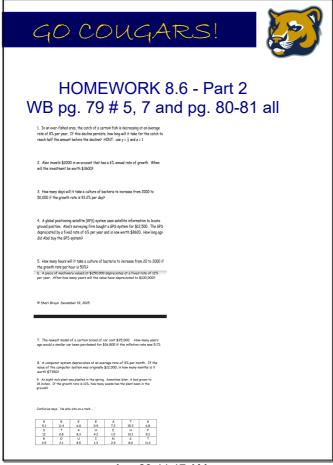
1.5762 = 1.067

What value of the end of the

Mar 16-11:02 AM

If \$3000 is invested at 6% compounded continuously, then how long will is take for the inverstment to grow to \$10,000? Round to the nearest whole number.





Aug 29-11:17 AM

jnvu6kq1.bmp