Algebra II Worksheet #5 Unit 11 page 1 _____

Solve for x. Express irrational solutions rounded to the nearest hundredth. Show your work neatly organized.

1. $4^{(x-3)} = 32$

2. $25^{(3x+1)} = 125$

3. $2^{(x+2)} = 20$

4. $3^{(2x-1)} = 75$

5. $\log_3 x = 2$

6. $\log_5 x = -2$

7. $\log_9 x = 1.5$

8. $\log_{16} x = -0.75$

9. $\log_2 x = 2.75$

10. $\log x = 1.82$

11. $1000 is invested in an account that pays interest at an annual rate of 6% compounded monthly. How long will it take for the value of the account to double? Express your answer rounded to the nearest tenth of a year.)

12. $700 is invested in an account that pays interest at an annual rate of 4% compounded daily. How long will it take for the value of the account to double? Express your answer rounded to the nearest tenth of a year.)

13. $600 is invested in an account that pays interest at an annual rate of 7% compounded continuously. How long will it take for the value of the account to double? Express your answer rounded to the nearest tenth of a year.)

14. $800 is invested in an account that pays interest at an annual rate of 5% compounded monthly. How long will it take for the value of the account to reach $2000? Express your answer rounded to the nearest tenth of a year.)

15. $600 is invested in an account that pays interest at an annual rate of 7% compounded quarterly. How long will it take for the value of the account to reach $2000? Express your answer rounded to the nearest tenth of a year.)

16. $1000 is invested in an account that pays interest at an annual rate of 2.5% compounded continuously. How long will it take for the value of the account to reach $2500? Express your answer rounded to the nearest tenth of a year.

17. Money is invested in an account that pays interest at an annual rate of 6% compounded monthly. How long will it take for the value of the account to double? Express your answer rounded to the nearest tenth of a year.)

18. Money is invested in an account that pays interest at an annual rate of 4% compounded daily. How long will it take for the value of the account to double? Express your answer rounded to the nearest tenth of a year.)

19. Money is invested in an account that pays interest at an annual rate of 5% compounded continuously. How long will it take for the value of the account to double? Express your answer rounded to the nearest tenth of a year.)

20. $600 is invested in an account that pays interest at an annual rate of 7% compounded continuously. How long will it take for the value of the account to reach $2000? Express your answer rounded to the nearest tenth of a year.)