LEON HIGH SCHOOL

ALGEBRA 2

REVIEW PACKET

Students are encouraged to use the suggested pacing schedule to remain on track while reviewing pertinent concepts that include factoring techniques as well as various methods to solve quadratic and logarithmic equations. Students may feel free to use the unassigned problems as optional review. The resources listed below provide additional support through video lessons and practice activities. Parents and students are encouraged to connect with the teachers via Remind or email. If you are not connected via remind, **text the class code to 81010 to receive text alerts or go to remind.com/join to sign up for email alerts.**

ADDITIONAL RESOURCES

ClassLink >> Pearson Realize (Textbook)
ClassLink >> Algebra Nation
https://www.khanacademy.org/resources/teacher-essentials

CONTACT INFORMATION

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DAILY PACING SCHEDULE

Day 1	Mixed Factoring Review (1-10)	Day 6	Solving Quadratic Equations (41-50)
Day 2	Mixed Factoring Review (11-21)	Day 7	Logarithm Review (1-11)
Day 3	Solving Quadratic Equations (1-11)	Day 8	Logarithm Review (12-22)
Day 4	Solving Quadratic Equations (12-30 even)	Day 9	Logarithm Review (23-33)
Day 5	Solving Quadratic Equations (31-40)	Day 10	Logarithm Review (34-44)

Solving Quadratic Equations – Mixed Techniques Name_____

***Solve by factoring*. Show ALL work.**

1. $x^2 - 7x - 18 = 0$
2. $x^2 + 3x + 2 = 0$
3. $x^2 - 5x = 14$
4. $x^2 = 6 - x$
5. $x^2 + 63 = 16x$
6. $x^2 + 12 = -x$
7. $2x^2 + 6x + 4 = 0$
8. $3x^2 - 15x + 15 = -3$
9. $7x^2 - 14x - 1 = 20$
10. $3x^2 = 9x + 54$
11. $7x^2 + 9x = 0$
12. $2x^2 + 17x + 21 = 0$
13. $3x^2 - 5x + 2 = 0$
14. $7x^2 = 31x + 20$
15. $5x^2 = x + 18$
16. $7x^2 - 45x - 28 = 0$
17. $9x^2 + 7x = 56$
18. $5x^2 + 50x + 30 = 7x + x^2$
19. $7x^2 - 60 = 32$
20. $10x^2 - 5x - 9 = x^2 + 1$
21. $7x^2 + 70x + 70 = -3x - 2x^2$
22. $10x^2 + 89x = 9$

***Solve using the quadratic formula. Show ALL work*.**

23. $4x^2 + 11x + 20 = 0$
24. $x^2 - 5x - 24 = 0$
25. $x^2 = 3x + 3$
26. $x^2 + 5 = -5x$
27. $x^2 = -x + 1$
28. $4x^2 - 1 = -8x$
29. $4x^2 + 7x - 15 = 0$
30. $x^2 + 3x - 10 = 0$
31. $10x^2 - 9x + 6 = 0$
32. $6x^2 - 11 = 0$
33. $6x^2 + 12x - 15 = -10$
34. $12x^2 + 9x - 30 = -10$
35. $6x^2 - 3 = -2x$
36. $-4x^2 + 18x - 15 = -7x^2 + 9x$
37. $-4x(x - 2) = 6(x + 3) - 11x^2$
38. $x(x - 3) = -7 - 10x$

***Solve by taking square roots. Show ALL work*.**

39. $x^2 = 96$
40. $2x^2 = 78$
41. $x^2 + 64 = 0$
42. $x^2 + 1 = 2$
43. $9x^2 - 16 = 0$
44. $x^2 - 1 = 80$
45. $7x^2 - 6 = 57$
46. $(2x - 1)^2 = 9$
47. $(x - 2)^2 + 9 = 25$
48. $(6x + 2)^2 + 4 = 28$
49. $10(x - 7)^2 = 440$
50. $4(x - 2)^2 + 9 = 25$

Mixed Factoring Review WS Name_____

Factor completely.

1. $9x^2 - 4$
2. $7x^3 + 14x^2 + 7x$
3. $2x^2 - x - 3$
4. $4x^2 - 20x + 25$
5. $x^3 - 3x^2 - 5x + 15$
6. $x^2 - 18x + 81$
7. $2x^3 - 4x^2 - 3x - 6$
8. $x^2 + 3x - 10$
9. $2x^2 - 5x + 2$
10. $16x^2 - 81$
11. $200x^2 - 50$
12. $3x^2 + 81$
13. $x^2 + 8x + 16$
14. $3x^2 - 11x - 20$
15. $4x^2 - 49$
16. $2x^3 - 3x^2 + 4x - 6$
17. $x^2 - 5x - 24$
18. $x^2 + 15x + 56$
19. $28x^3 - 7x$
20. $2x^2 + 20x + 48$
21. $5x^2 - 32x - 21$

Logarithm Review Name:_____

Solve for x. You must show ALL work. NO DECIMALS!!!!

1. $\log_{32} 4 = x$
2. $\log_{216} x = -\frac{2}{3}$
3. $\log_x 625 = \frac{4}{3}$
4. $\log_{81} \frac{1}{27} = x$
5. $\log_3 x = 1$
6. $\log_x \frac{1}{5} = -\frac{1}{4}$
7. $\log_x 243 = \frac{5}{6}$
8. $\log_{100} x = \frac{5}{2}$
9. $\log_{256} 32 = x$
10. $\log_x \frac{125}{27} = \frac{3}{4}$
11. $\log_x 16 = 2$
12. $\log_3 243 = x$
13. $\log_x \frac{1}{36} = \frac{1}{2}$
14. $\log_5 x = -3$
15. $\log_2 (-4) = x$
16. $\log_x 2 = \frac{1}{4}$
17. $\log_{64} \frac{1}{2} = x$
18. $\log_{1000} x = -\frac{2}{3}$
19. $\log_x 8 = \frac{3}{5}$
20. $\log_{16} 64 = x$
21. $\log_{32} x = \frac{7}{5}$
22. $\log_{125} \frac{1}{25} = x$
23. $\log_{49} 343 = x$
24. $\log_x 81 = \frac{4}{3}$
25. $\log_{\frac{8}{27}} x = -\frac{4}{3}$
26. $\log_{-x} 25 = 2$
27. $\log_{\frac{1}{4}} x = \frac{1}{2}$
28. $\log_1 6 = x$
29. $\log_x 3 = 0$
30. $\log_3 \frac{1}{27} = x$
31. $\log_3 81 = x$
32. $\log_3 x = 5$
33. $\log_x 256 = 8$
34. $\log_2 256 = x$
35. $\log_4 x = 2$
36. $\log_5 x = 1$
37. $\log_6 x = -1$
38. $\log_x 64 = 3$
39. $\log_2 (x + 1) = 1$
40. $\log_x 343 = 3$
41. $\log_x 243 = 5$
42. $\log_5 (x - 4) = 0$
43. $\log_x \frac{1}{8} = -3$
44. $\log_x 16 = -4$
45. $\log_4 x = \frac{3}{2}$