Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**GT/PAP Algebra 2 Summer Assignment**

Please complete all your work on this assignment – you must **show all of your work** to receive credit! Write your final answer in the blank provided.

*\*This will be due the first 2 days of school at the beginning of class. There will be 10 points deducted per block late.\**

1. **Simplify the following fractions. *Remember – you must show your work. If you type this into the calculator and write your answer down, you will \*not\* receive credit.***

Answers

1. \_\_\_\_\_

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

1. 2.

3. 4.

5. 6.

1. **Simplify the following expressions.**

7. 8.

9. 10.

1. **Solve the following equations for the variable.**

11. 12.

13. 14.

Answers

13. \_\_\_\_\_

14.

15.

16.

17.

18.

19.

20.

21.

22.

15. 16.

17. 18.

19. 20.

1. **Solve the following word problems.**

21. A farmer plants corn and wheat on a 180-acre farm. The farmer wants to plant three times as many acres of corn as wheat. Write a system of linear equations that represents this situation. How many acres of each crop should the farmer plant?

22. You have $32 to spend on supplies for your science fair project. If you buy two plants for experiments, you will have $18 left for other supplies. How much is each plant?

1. **Solve each equation for the indicated variable.**

Answers

23. \_\_\_\_\_

24.

25.

26.

27.

28.

29.

30.

31.

32.

33.

34.

35.

36.

37.

38.

23. 24.

25. 26.

27. 28.

29. 30.

1. **Factor each quadratic expression.**

31. 32.

33. 34.

35. 36.

37. 38.

1. **Write the equation of the line described.**

Answers

39. \_\_\_\_\_

40.

41.

42.

43.

44.

45.

**Write the equation in slope-intercept form.**

39. The line with a slope of and a y-intercept of .

40. The line passing through and parallel to the line .

41. The line passing through and perpendicular to the line .

42. The line with an x-intercept of and a y-intercept of .

43. The line passing through and .

44. The line with a y-intercept of -6 and parallel to the line .

45. The horizontal line through (5, -7).

1. **Graph the following equations.**

46. 47.



48. 49.



50. 51.



BONUS:

Given and , evaluate .