

Rising 9th Grade Algebra I Students

To get ready for Algebra I, you will need to complete the attached packet- have everything completed and the packet ready to turn in on the first full day of class (August 08).

Packet Directions:

Please show all your work in the space provided or add additional paper if needed. You must show all work to receive credit for this assignment. Please post your answers on the answer sheet provided. This will be collected on the first full day of school and will be graded for accuracy.

If you need assistance, I will be available to help you with these concepts on June 27 from 9:30-10:30 and July 17 from 11:30-12:30 in room 216.

1. Lucas, Carson & Stan spend \$284.00 to buy supplies to make a rock wall. They charged people to climb the rock wall one weekend and collected \$674.00. If they split the profits evenly, how much did each person earn?

Evaluate each expression if $x = 5$, $y = 3$ and $z = -2$.

2. $xy + 6z$

3. $x - \frac{6y}{9}$

4. $17 - 3z$

Fill in the blank with $>$, $<$ or $=$ to make each statement true.

5. -4 _____ -6

6. 3.8 _____ 3.75

7. $\frac{2}{3}$ _____ $\frac{5}{8}$

8. Translate the phrase “the product of 4 and a number y” into an algebraic expression
9. Translate the phrase “3 less than the quotient of 4 and a number k” into an algebraic expression

Evaluate each expression. *Show your work and do not use a calculator.

10. $|-36|$

11. $-8|12|$

12. $|-7| + |12|$

13. $-3 - 2(-4)$

14. $(-4)(6)(-5)$

15. $(-2)(-2)(-2)(-2)(-2)$

16. $-13 - 2(-19)$

17. $\frac{4+8 \cdot 3}{3+6-2}$

18. $3(4 - 10 \div 2)$

19. Convert 3.8 kg to grams

20. Convert 42 cm to km

21. Convert 4 yards to inches

22. For each error he makes on his math quiz, Kurt receives -3 points. If Kurt incorrectly answers six questions on a hundred point quiz, what is his score?

Solve each equation. Express answers in lowest terms.

23. $v - 18 = 24$

24. $3w^2 - 4 = 71$

25. $\frac{n}{6} = \frac{6}{9}$

26. $\frac{1}{3}b = 12$

27. $3r = 4\frac{1}{2}$

28. $10(e - 2) = 40$

29. $4(k+3) = 24$

30. $9 - n = 11$

31. $4h + 6 = 2h - 8$

32. The perimeter of a rectangle is 84 meters. Find the dimensions of the rectangle if the length is 3 meters less than twice the width.

Evaluate each expression. Express your answers in lowest terms. NO DECIMAL ANSWERS.

$$33. \frac{3}{8} + \frac{1}{4}$$

$$34. \frac{3}{5} \cdot \frac{2}{3}$$

$$35. \frac{9}{10} \div \frac{2}{3}$$

$$36. \frac{2}{3} - \frac{2}{5}$$

$$37. 3\frac{3}{5} \cdot \frac{1}{6}$$

$$38. 4\frac{9}{10} \div 2$$

39. You roll a fair, six sided die. What is the probability you will roll a prime number?

40. You draw a card from a full deck of cards with no jokers (52 cards: 13 Hearts, 13 Diamonds, 13 Spades and 13 Clubs) and roll a fair six sided die. What is the probability that you will draw a heart and roll an even number?

41. You roll a fair six sided die and spin a spinner with 4 evenly spaced colors on it. How many combinations of numbers and colors can you possibly get?

Convert each fraction to a decimal.

42. $\frac{3}{5}$

43. $\frac{5}{8}$

44. $4\frac{3}{4}$

Convert each decimal to a fraction in lowest terms.

45. 0.08

46. 0.6

47. 0.24

Convert each value to a percent.

48. 0.47

49. 0.2

50. $\frac{6}{8}$

Solve each inequality. Then graph the solution on the number line.

51. $x + 5.7 < 3$

52. $9 \leq \frac{a}{3}$

53. $1 - 3h > 22$

For #54-60, draw and label the Cartesian Coordinate System as directed.

54. Label the x-axis and y-axis.

55. Label the origin.

56. Label the 4 quadrants. *Use Roman Numerals

57. Plot Point A at (3, 5)

58. Plot Point B at (2, -4)

59. Plot Point C at (-1, 2)

60. Graph the equation, $y = 2x - 5$.