

Geometry Honors Summer Work

Hello and welcome to Geometry Honors. While we will be learning Euclidean Geometry and applying it to solve various problems, it is important to still remember how to do some algebra topics such as solving equations, simplifying square roots, etc. This packet will test your knowledge from the different Algebra classes that you have had in the past. This packet will be due by the first day of school and no late work will be accepted. This will be graded based on correct answers and will be your first grade for the 1st quarter. If you have any questions, please email me at ckieszek@charterarts.org. I look forward to seeing you next year and learning about Geometry!

Name: _____

ID: A

- _____ 11. $-4x - 6x - 1 - 5$
a. $2x + 4$ b. $-10x + 4$ c. $-10x - 6$ d. $2x - 6$
- _____ 12. $(2x + 2)(4x + 3)$
a. $8x^2 + 14x + 6$ c. $8x^2 - 14x + 6$
b. $8x^2 - 2x - 6$ d. $8x^2 + 2x - 6$
- _____ 13. $(3m + 8)^2$
a. $9m^2 + 48m - 64$ c. $9m^2 - 48m + 64$
b. $9m^2 + 24m - 64$ d. $9m^2 + 48m + 64$
- _____ 14. $\sqrt{32}$
a. 8 b. 2 c. $4\sqrt{2}$ d. $8\sqrt{2}$
- _____ 15. $\sqrt{\frac{5}{49}}$
a. $\frac{\sqrt{5}}{25}$ b. $7\sqrt{5}$ c. $\frac{\sqrt{5}}{7}$ d. $\frac{5}{7}$
- _____ 16. $\frac{3}{\sqrt{11}}$
a. $\frac{3\sqrt{11}}{11}$ b. $3\sqrt{11}$ c. $11\sqrt{3}$ d. $\frac{\sqrt{121}}{11}$
- _____ 17. $|-20 - 11|$
a. 30 b. -30 c. 31 d. -31
- _____ 18. $|6| - |-11|$
a. -5 b. 17 c. 5 d. -17
- _____ 19. $-3|9 + 3|$
a. -36 b. 12 c. 36 d. -12
- _____ 20. 29% of 33
a. 10.05 b. 9.57 c. 8.13 d. 11.01
- _____ 21. $\sqrt{\frac{49}{16}}$
a. $\frac{7}{4}$ b. $\frac{25}{16}$ c. $\frac{7}{16}$ d. $\frac{25}{8}$

Solve. Round to the nearest tenth if necessary.

- _____ 22. $x^2 = 41$
a. ± 6.4 b. ± 9.4 c. ± 13.5 d. ± 20.5
- _____ 23. $11^2 + c^2 = 15^2$
a. ± 104 b. ± 6.1 c. ± 10.2 d. ± 2

Evaluate the expression for $x = 2$ and $y = -4$.

- _____ 24. $-3x + 2y$
a. -4 b. -6 c. -14 d. 14

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- ___ 25. $(-x - y)^2$
a. 4 b. 36 c. -4 d. 25
- ___ 26. $5xy$
a. -40 b. -20 c. 40 d. 10
- ___ 27. $\frac{x^2 - y}{x + 5y - 1}$
a. 0 b. $-\frac{6}{19}$ c. $-\frac{8}{19}$ d. $-\frac{8}{17}$

Solve the equation.

- ___ 28. $|x| - 10 = 6$
a. ± 4 b. 16 c. ± 16 d. -16
- ___ 29. $56 - 13 + 5g = 78$
a. 7 b. 4 c. 9 d. -7
- ___ 30. $6(y + 6) = 90$
a. 21 b. 9 c. 10 d. -21
- ___ 31. $\frac{2p}{3} - 15 = -19$
a. -19 b. -51 c. -6 d. -1

Solve the system of equations.

- ___ 32. $\begin{cases} -3x - 3y = 3 \\ 3x - y = 1 \end{cases}$
a. (-3, 1) b. (1, -3) c. (0, -1) d. (-1, 0)
- ___ 33. $\begin{cases} -5x - 5y = -5 \\ x - 5y = 7 \end{cases}$
a. (-1, 2) b. (2, -1) c. (-2, 1) d. (1, -2)

Short Answer

34. Simplify $-|19|$.
35. What is the total number of squares in the figure below?

