

Summer Work: 8th Grade - Foundations of Algebra/Algebra 8 Enriched

Due: Bring to your first math class

What You Need to Do:

Part I: Complete the Summer Math Packet

- Use a **separate sheet of paper**.
- **Show all work** to receive full credit.
- **Check your answers** at the end of the packet.
- You may **ONLY** use a calculator for #10-17. **NO CALCULATORS** for #1-9.

Part II: Complete 4 Delta Math Assignments

- Fractions and Decimals
- Proportions and Percents
- Coordinate Plane Review
- Expressions and Equations

Delta Math Login Instructions (If you do not know what class you are taking, please contact the Middle School Office.)

1. Go to deltamath.com/students
2. Click the orange **“Register”** button
3. If you are taking **FOUNDATIONS OF ALGEBRA** enter this class code:

G3Z8-TL4Y

If you are taking **ALGEBRA 8 ENRICHED** enter this class code:

4V54-WC2Y

This will allow you to join the *appropriate* class on Delta Math.

4. Log in with your Garrison Forest Gmail account

 **This assignment will count as a graded completion assignment on your first quarter progress report.**

Part III: Continue to practice multiplication/division facts and operations with positive and negative numbers. Knowing these will help you *tremendously* in your study of Algebra!

Part I: (Please use a separate piece of paper)

#1-9. NO CALCULATOR. SHOW YOUR WORK.

1a. $0.307 + 0.19$

b. $.422 + 7.49$

c. $82.06 + 103.955$

2a. $72.83 - 16.99$

b. $15 - 0.026$

c. $13.2 - 0.876$

3a. 3.45×0.2

b. 1500×0.2

c. 4.5×1.03

4a. $\frac{5}{3} + \left(\frac{-7}{6}\right)$

4b. $\frac{5}{6} - \left(\frac{-5}{9}\right)$

4c. $\frac{-5}{4} + \frac{1}{2}$

5a. $\frac{-7}{3} \times \frac{6}{5}$

5b. $\frac{-2}{3} \times \frac{-1}{6}$

5c. $6\frac{3}{4} \times \left(-1\frac{1}{3}\right)$

6a. $\frac{2}{5} \div \frac{-2}{3}$

6b. $\frac{-2}{-7} \div \frac{4}{-9}$

6c. $\frac{\frac{-3}{5}}{\frac{2}{7}}$

7a. $14 - (5 + 1)^2$

7b. $-2^3 - 3^2$

7c. $-3 + 5(-6) - 7(-1)$

8a. Complete the inequality with =, < or >: 2^5 5^2

8b. $\left(\frac{3}{7}\right)^2$

8c. $(0.5)^2$

9a. Evaluate $7c + 8d - 11$ when $c = 3$ and $d = -2$.

9b. Evaluate $4a + b^2$ when $a = -5$ and $b = 8$.

9c. Evaluate $10x - xy$ when $x = -6$ and $y = -4$.

#10-17. You MAY use a CALCULATOR. Still SHOW YOUR WORK, however.

10a. What is 4% of 10?

10b. 12 is 60% of what number?

10c. 20 is what percent of 25?

11a. While waiting for a video game to download, you notice that 30% of the 32,000 kilobytes have been downloaded so far. How many kilobytes have been downloaded?

11b. Of the 50 U.S. states, 4 have names that start with the letter W. What percent of the U.S. states have names that start with the letter W?

11c. Ms. O'Neal asks her class what kind of party they want to have to celebrate their excellent behavior. Out of all the students in the class, 5 want an ice cream party, 7 want a movie party and 10 want a costume party. The rest are undecided. If 20% want an ice cream party, how many students are in the class?

12a. In the coordinate plane, if a point is located 3 units to the right of the origin and 5 units down, in which quadrant does it lie?

12b. In which quadrant does the point $(-4, -5)$ lie?

12c. The ordered pair (a, b) gives the location of a point in the coordinate plane. If $a = 0$, but b is not 0, on which axis must the point be located?

13. Solve for each variable:

a. $-11x + 7 = 40$

b. $-9 = -5 + 8y$

c. $\frac{n}{5} - 8 = 2$

- 14a. A student walked 25 km in 4 hrs. What is her average speed in kilometers per hour?
- 14b. A dozen apples cost \$4.80. What is the unit price?
- 14c. Baugher's sells 12 oranges for \$5.00. How much would 18 oranges cost at the same rate?
- 15a. Find the area of a triangle with a base of 24 meters and a height of 3.5 meters. ($A = \frac{1}{2}bh$)
- 15b. What is the perimeter of a square with an area of 81 square feet?
- 15c. The area of a rectangle is 6 inches. If the base measures $\frac{1}{4}$ inch, what is the height of the rectangle?
- 16a. Mercury melts at -38.87°C and boils at 356.9°C . What is the difference between these temperatures?
- 16b. The altitude of the Dead Sea is 1296 feet below sea level. How much greater is the altitude of Death Valley, California, at 282 feet below sea level?
- 16c. An astronaut enters a space capsule 1 hour 40 minutes before launch time. How long has she been in the capsule 2 hours 30 minutes after the launch?

ANSWERS - Remember that you should be showing your work.

1a. .497 b. 7.912 c. 186.015 2a. 55.84 b. 14.974 c. 12.324 3a. 0.69 b. 300 c. 4.635 4a. $\frac{1}{2}$ b. $\frac{25}{18} = 1\frac{7}{18}$ c. $\frac{-3}{4}$ 5a. $\frac{-14}{5} = -2\frac{4}{5}$ b. $\frac{1}{9}$ c. -9 6a. $\frac{-3}{5}$ b. $\frac{-9}{14}$ c. $\frac{-21}{10} = -2\frac{1}{10}$	7a. -22 b. -17 c. -26 8a. > b. $\frac{9}{49}$ c. .25 9a. -6 b. 44 c. -84 10a. .4 b. 20 c. 80% 11a. 9600 kb b. 8% c. 25 students 12a. Quadrant IV b. Quadrant III c. y-axis	13a. $x = -3$ b. $y = \frac{-1}{2}$ c. $n = 50$ 14a. 6.25 km/hr b. \$.40/apple c. \$7.50 15a. 42 m² b. 36 ft c. 24 in 16a. 395.77° b. 1014 ft c. 4hr 10min
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