

## Summer Assignment for Gunderson Algebra 1 Students

This summer assignment is given to help you have a successful year in Algebra 1. Your summer assignment is to complete each problem following the directions below. You will be asked for your completed assignment on the first day of school.

- Work the problems on 8 ½” x 11” lined or grid binder paper.
- Head each of your pages as shown here:

Algebra 1 Summer Assignment  
Print date

Print first name, last name  
Period # of your math class

- Label the beginning of each problem with its number; work the problems in order.
- Circle the number of each problem.
- Put a box around each of your answers where possible.
- You may use the back of the page if you wish.
- Show your work/steps on every problem that is not a fill-in-the-blank problem.
- You will be asked for your completed assignment on Friday of the first week of school.
- Late work must be made up for credit.
- If you do not understand how to work a problem, copy the problem onto your paper and leave space to work the problem when your teacher explains the problem in class.
- Do not skip problems. You should have something written for every problem assigned. Your teacher will help you with the problems that trouble you.
- After several days, you should expect a quiz covering the topics on the summer assignment.

## Algebra 1 Summer Assignment

### PLEASE FOLLOW DIRECTIONS GIVEN FOR SUMMER ASSIGNMENT

- Find the absolute value. a.  $|22|$       b.  $|-15|$       c.  $|0.6|$       d.  $|-1.295|$
- Write a true sentence using  $<$  or  $>$ .  
a.  $-9 \underline{\quad} 7$       b.  $3 \underline{\quad} 4$       c.  $5 \underline{\quad} -8$       d.  $-2 \underline{\quad} -3$   
e.  $-63 \underline{\quad} -51$       f.  $0.01 \underline{\quad} 0.011$       g.  $4.12 \underline{\quad} -4.13$       h.  $7.52 \underline{\quad} 7.25$   
i.  $\frac{2}{3} \underline{\quad} \frac{1}{2}$       j.  $-\frac{1}{8} \underline{\quad} -\frac{3}{16}$       k.  $-\frac{2}{5} \underline{\quad} \frac{1}{3}$       l.  $\frac{4}{5} \underline{\quad} \frac{7}{10}$
- Add.      a.  $-9 + (-2)$       b.  $5 + (-18)$       c.  $-6 + 8$
- Simplify.      a.  $17 + (-39) + 3.5$       b.  $-21 + (-5) + 103$       c.  $-7 - (-7)$       d.  $19 - (-21)$
- Evaluate.      a.  $|2| + |-9|$       b.  $|-4| \cdot |2| + |-7|$
- Simplify.      a.  $19 + (-27) - 5 - (-13)$       b.  $-53 + (-19) - 41 - (-8)$       c.  $-7 - 16 + (-9) - (-25)$
- Solve: Bob entered the elevator on the eighth floor. The elevator went up 4 floors. Next it went down 10 floors. Then the elevator went up 3 floors and Bob got off. What floor was he on?
- Solve: Cheryl's checking account was overdrawn by \$102.75. After she made a deposit, she was overdrawn by \$67.85. How much did she deposit?
- Solve: At 4 a.m., the temperature at Anchorage was  $-12^{\circ}\text{F}$ . By noon, the temperature was  $39^{\circ}\text{F}$ . How many degrees did the temperature rise?
- Multiply.  
a.  $-8 \cdot 2$       b.  $(-2) \cdot (-5)$       c.  $7 \cdot (-6)$       d.  $(-9) \cdot 2 \cdot (-3)$       e.  $8 \cdot (-3)$   
f.  $9(-5)$       g.  $-9 \cdot 8$       h.  $-10 \cdot 3 \cdot (-1)$       i.  $-7(-6)(-1)$       j.  $-9(-2)$   
k.  $15(-8)$       l.  $-12(-10)$       m.  $-14(17)(0)$
- Divide.      a.  $36 \div (-6)$       b.  $\frac{28}{-7}$       c.  $\frac{-16}{8}$       d.  $-22 \div (-2)$   
e.  $\frac{-48}{-12}$       f.  $-63 \div (-9)$       g.  $\frac{-50}{25}$       h.  $-100 \div (-50)$   
i.  $\frac{-200}{8}$       j.  $-108 \div 9$       k.  $\frac{-63}{-7}$       l.  $\frac{200}{-25}$

12. Use the distributive property to write an equivalent expression.

- a.  $2(b + 5)$       b.  $4(x - 3)$       c.  $-6(v + 4)$       d.  $(1 + y)7$   
d.  $3(x + 1)$       e.  $(x - 8)7$       f.  $4(1 + y)$       g.  $9(s - 1)$   
h.  $6(5x + 2)$       i.  $9(6m - 7)$       j.  $7(x - 4 + 6y)$       k.  $(5x + 8 - 3p)4$

13. Collect like terms.

- a.  $9z + 10z$       b.  $12x + 2x$       c.  $10a + a$   
d.  $16x + x$       e.  $-2x + 9z + 6x$       f.  $3a + 5b - 7a$   
g.  $7x + 6y^2 - 9y^2$       h.  $12m^2 + 6q - 9m^2$       i.  $41a + 90 + 60a + 2$

14. Evaluate.

- a.  $9 + y + y$  for  $y = -2$       b.  $2a + 5b$  for  $a = 3$  and  $b = 7$       c.  $\frac{3x}{5y}$  for  $x = 10$  and  $y = -2$   
d.  $\frac{2m + n}{3}$  for  $m = 7$  and  $n = 4$       e.  $h + 3k$  for  $h = 5$  and  $k = 1$       f.  $4(r + 6) - 3$  for  $r = 7$   
g.  $6a^3$ , for  $a = 2$       h.  $5r^2 + 1$ , for  $r = 2$       i.  $m^3 + 4$ , for  $m = 0$   
j.  $x^3 - 7$ , for  $x = 2$       k.  $(2c)^5$ , for  $c = 1$       l.  $2c^2$ , for  $c = 1$   
m.  $(3xy)^2$ , for  $x = 5$  and  $y = 1$       n.  $(ab)^3$ , for  $a = 2$  and  $b = 3$       o.  $(2mn)^4$ , for  $m = 0$  and  $n = 2$   
p.  $(st)^5$ , for  $s = 1$  and  $t = 1$       q.  $(m - 4)(m + 1)$ , for  $m = 6$       r.  $(9 - w)^2$ , for  $w = 5$

15. Write using exponential notation.

- a.  $8 \cdot 8 \cdot 8$       b.  $12 \cdot b \cdot b \cdot b$       c.  $3 \cdot 3 \cdot 3 \cdot 3$       d.  $7 \cdot n \cdot n \cdot n \cdot n$       e.  $w$

16. Express using exponents.      a.  $2^4 \cdot 2^3$       b.  $3^5 \cdot 3^2$       c.  $a^6 \cdot a^8$       d.  $m^7 \cdot m^0$

17. Simplify.      a.  $[9 - 2(5 - 4)]$       b.  $[6 - 5(8 - 4)]$       c.  $8[7 - 6(4 - 2)]$

d.  $2[5(6 - 4) + (-3)^2]$       e.  $(-2)^3 - (-1)^8 + (-3)^2$       f.  $3(-2)^3 \cdot (-1)^{21}$

g.  $5[-3(2^3) + (-2)^2(7)]$       h.  $\frac{5(-11) + (-1)}{7}$       i.  $\frac{4 + (-8)5}{-9}$

18. Plot each of these points on the same coordinate plane.

- a.  $(-2, 5)$       b.  $(2, 3)$       c.  $(4, 0)$       d.  $(-5, -6)$       e.  $(0, -3)$       f.  $(6, -1)$

19. Plot each of these points on the same coordinate plane.

- a.  $(2, 5)$       b.  $(4, 6)$       c.  $(-1, 3)$       d.  $(-2, 4)$       e.  $(3, -2)$       f.  $(0, -5)$

20. Plot each of these points on the same coordinate plane.

- a.  $(5, -3)$       b.  $(-2, -4)$       c.  $(-5, -7)$       d.  $(0, 4)$       e.  $(5, 0)$