

**Cherry Creek High School
Summer Assignment for students entering:
Accelerated CP Algebra 1**

The following worksheets are intended as a review for you in preparation for the first day of class. Fractions, positive and negative numbers, and orders of operations are important concepts that are assumed to be mastered prior to this class. Please have these worksheets completed (without the aid of a calculator) and bring them with you on the first day of class, August 13, 2018. Selected answers are provided for you to check. This packet will count as a homework assignment and will be assessed on a quiz during the first week of class.

If you need some assistance or further explanation, here are the web addresses for Khan Academy lessons that might be helpful.

Adding, Subtracting, Fractions:

http://www.khanacademy.org/math/arithmetic/absolute-value/adding_subtracting_negatives/v/negative-numbers-introduction

http://www.khanacademy.org/math/arithmetic/absolute-value/mult_div_negatives/v/multiplying-positive-and-negative-numbers

http://www.khanacademy.org/math/arithmetic/fractions/Adding_and_subtracting_fractions/v/adding-fractions-with-like-denominators

Order of Operations: http://www.khanacademy.org/math/arithmetic/multiplication-division/order_of_operations/v/introduction-to-order-of-operations

Have a great summer and we look forward to seeing you in the Fall!

The CCHS Math Department

Positive and Negative Integers

Name _____

Work must be done without a calculator.

Find each sum.

1. $-11+7$

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

3. $15+(-10)$

4. $34+21$

5. $-45+13$

6. $(-17)+(-23)+(-1)$

7. $97+(-59)$

8. $500+(-579)$

Find each difference.

9. $-16-10$

10. $(-9)-(-14)$

11. $35-(-13)$

12. $75-100$

13. $80-25$

14. $(-33)-(-23)-(10)$

15. $(-125)-(-110)$

16. $1-(-11)$

Find each product.

17. $(-3)(2)$

18. $(10)(-11)$

19. $9 \cdot 8$

20. $(-100)(-8.5)$

Find each quotient.

21. $\frac{-34}{2}$

22. $\frac{-32}{-4}$

23. $\frac{100}{-5}$

24. $\frac{65}{13}$

Evaluate each using the values given.

25. $\frac{xy}{2}$ for $x = 5$ and $y = -6$

26. $x^2 + y$ for $x = -3$ and $y = -10$

27. $-3x + 4y$ for $x = -2$ and $y = -3$

28. $5x + y^3 - w$ for $x = 10$, $y = -2$, and $w = -4$

Selected Answers: 3) 5 6) -41 11) 48 15) -15 18) -110 22) 8
25) -15 27) -6

Fractions

Name _____

Work must be done without a calculator.

Find the sum or difference.

1. $\frac{1}{5} + \frac{3}{5}$

2. $\frac{2}{7} - \frac{6}{7}$

3. $\frac{1}{2} + \frac{1}{4}$

4. $\frac{3}{5} - \frac{1}{3}$

5. $-\frac{6}{7} + \frac{1}{4}$

6. $\frac{3}{5} + \frac{2}{25}$

7. $\frac{1}{10} + \frac{1}{10} - \frac{1}{5}$

8. $-\frac{4}{15} - \left(-\frac{2}{5}\right)$

9. $4 + \frac{1}{5}$

10. $\frac{2}{3} - (-2)$

11. $1 - \frac{2}{7}$

12. $\frac{2}{3} + \frac{1}{3} + \left(-\frac{1}{6}\right)$

Find the product or quotient.

13. $\left(\frac{2}{3}\right)\left(\frac{1}{3}\right)$

14. $\left(\frac{-3}{4}\right)\left(\frac{1}{6}\right)$

15. $\left(\frac{7}{2}\right)\left(-\frac{1}{10}\right)$

16. $\left(-\frac{1}{2}\right)\left(-\frac{8}{3}\right)$

17. $\frac{\left(\frac{1}{3}\right)}{\left(\frac{2}{5}\right)}$

18. $\frac{\left(-\frac{3}{8}\right)}{\left(\frac{1}{6}\right)}$

19. $\frac{\left(-\frac{7}{10}\right)}{\left(-\frac{1}{5}\right)}$

20. $\frac{\left(\frac{2}{5}\right)}{\left(-\frac{4}{3}\right)}$

21. $7 \cdot \frac{2}{3}$

22. $\frac{\left(-\frac{3}{10}\right)}{5}$

23. $\frac{6}{\left(\frac{2}{7}\right)}$

24. $\frac{1}{4} \cdot 12$

Suppose $a = 2.35623$, $b = 4.9983$, and $c = 7.9279$.

25. Round each to the nearest tenth

26. Round each to the nearest hundredth

27. Round each to the nearest thousandth

Selected Answers: 2) $-\frac{4}{7}$ 6) $\frac{17}{25}$ 11) $\frac{5}{7}$ 14) $-\frac{1}{8}$ 19) $\frac{7}{2}$ 23) 21

Order of Operations

Name _____

Use order of operations (PEMDAS) to simplify each of the following expressions. Show all work. Work must be done without a calculator.

1. $5+3\cdot 2$

2. $-6\cdot 2+10\div 2$

3. $(9-3+6)\div 2$

4. $\frac{3^2-2\cdot 4}{1-3}$

5. $2-(4+3-6)$

6. $5^2-4^2+3^2$

7. $5^2-(4^2+3^2)$

8. $-1\cdot 2-3(5-3)+\frac{12}{3}$

9. $(18-6\cdot 2)+2^3\div (5-1)$

10. $7+3\cdot 2^2\div 6$

11. $10-10(-4-2)+6$

12. $[9(5+3)]-84$

13. $8\cdot 2^2-7(4+1)$

14. $\frac{2\cdot 7+26}{16-3\cdot 2^2}$

15. $(10^2-10\cdot 8)\div (8-12)$

16. $17-5^2\div (4^2+3^2)$

17. $\frac{2}{3}(-7+10)-\frac{1}{4}\div \frac{1}{8}$

Evaluate each expression for $x = 5$, $y = -2$, $z = 1$.

18. xyz

19. $\frac{-25}{x}+y^2$

20. $3(z+x)+x\div z$

21. $\frac{x+2y+z^2}{z(z+z)}$

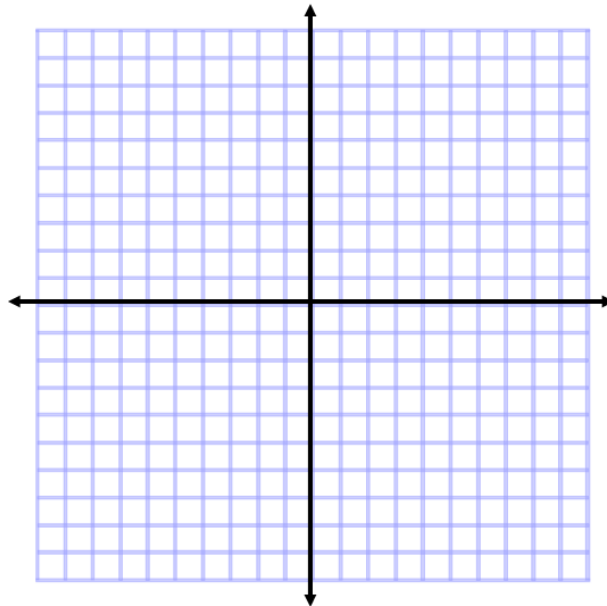
Selected Answers: 2) -7 8) -4 10) 9 14) 10 15) -5 21) 1

Plotting Points

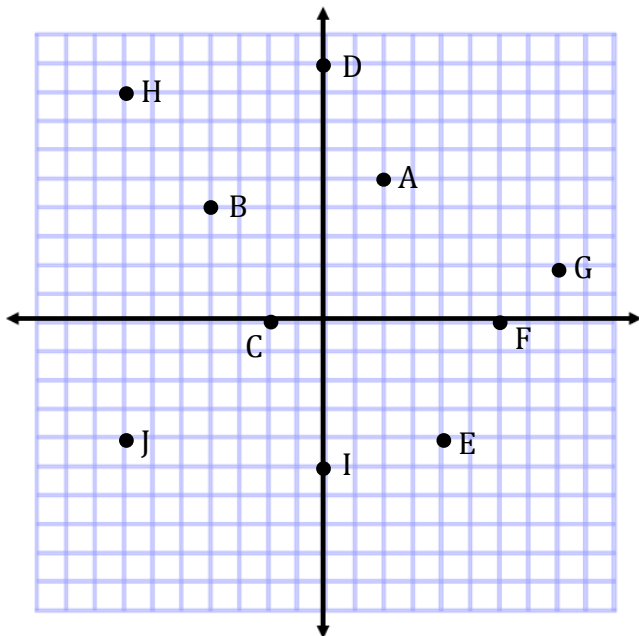
Name _____

Plot the given points on the graph provided. Make sure you label the points.

1. $A = (3, 4)$ $B = (0, 2)$ $C = (-3, 5)$ $D = (-4, 0)$ $E = (-6, -5)$
 $F = (7, -2)$ $G = (0, 0)$ $H = (-5, 1)$ $I = (0, -8)$ $J = (3, 0)$



2. On the graph below, 10 points are plotted. Find the coordinate pair for each point plotted on the graph and indicate in which quadrant or on which axis each point is located.



- $A = (\quad , \quad)$ Quadrant: _____
 $B = (\quad , \quad)$ Quadrant: _____
 $C = (\quad , \quad)$ Quadrant: _____
 $D = (\quad , \quad)$ Quadrant: _____
 $E = (\quad , \quad)$ Quadrant: _____
 $F = (\quad , \quad)$ Quadrant: _____
 $G = (\quad , \quad)$ Quadrant: _____
 $H = (\quad , \quad)$ Quadrant: _____
 $I = (\quad , \quad)$ Quadrant: _____
 $J = (\quad , \quad)$ Quadrant: _____

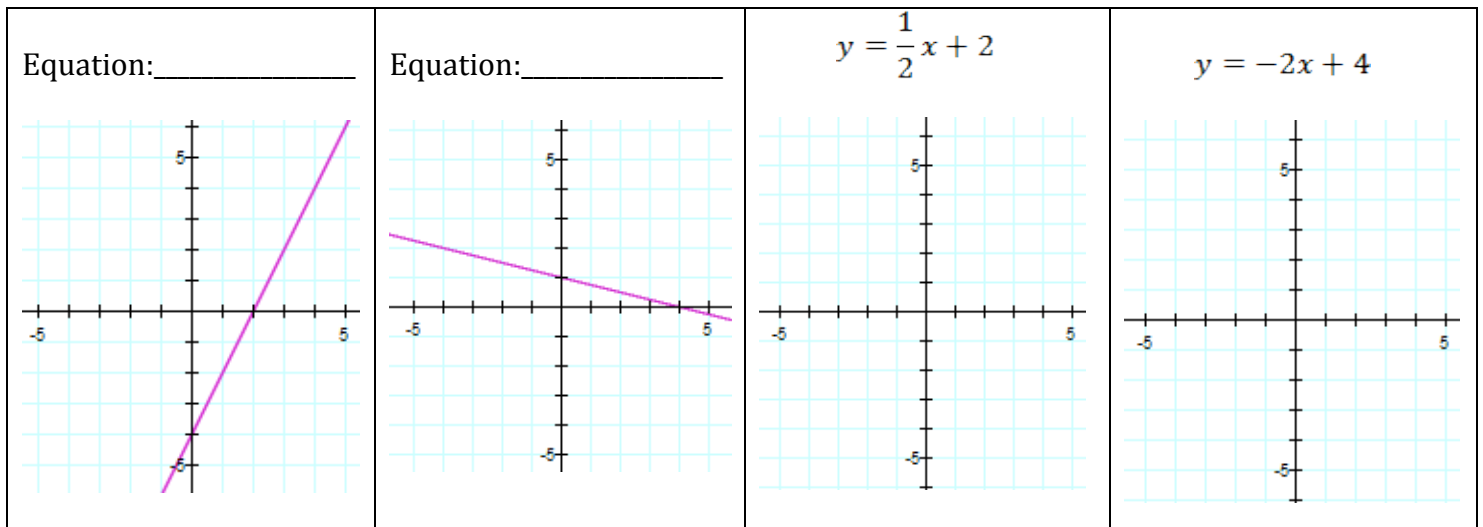
Graphing.

Name _____

Work must be done without a calculator. Please show us what you know about the following topics.

1. Write the equation of each line graphed:

2. Sketch the graph of the given linear equation:



3. Find the slope, y-intercept, and x-intercept of the line: $y = 3x - 6$

4. Use the distributive property and combine like terms to simplify:

(a) $2(x-3)$ (b) $3x(4x - 5) + x^2$ (c) $8x + x^2 - 7 + 3x$ (d) $5x^2 - 4 + 5 + 2x^2$

5. Solve each equation for x:

(a) $4x = 20$ (b) $x - 5 = 9$ (c) $2x - 3 = -4$ (d) $\frac{1}{3}x = 8$

(e) $x^2 = 49$ (f) $7x - 3 = 1$ (g) $3x - 1 = 4x + 6$ (h) $\frac{2}{3}x + \frac{1}{3} = \frac{5}{3}$