

Christ the King Diocesan High School

Algebra 1

Summer Math Packet 2024

This packet will help you review basic algebra concepts.

- Please show all your work. No work, No credit!  
(If you need more room, use loose-leaf paper to do your work and staple it to the corresponding worksheet.)
- You will be expected to do a worksheet every week.
- Do not wait to do all of the worksheets at one time.
- The COMPLETED packet is due August 16, 2024

## Page 1: Operations with Fractions

Date \_\_\_\_\_

**Evaluate each expression.**

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

2)  $(-1) + \frac{2}{3}$

3)  $1 - 4\frac{1}{4}$

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

**Find each product.**

5)  $\left(\frac{1}{2}\right)\left(-\frac{17}{12}\right)$

6)  $(15)\left(-\frac{3}{5}\right)$

7)  $\left(-\frac{5}{3}\right)\left(-\frac{3}{2}\right)$

8)  $(13)\left(-\frac{5}{3}\right)$

**Find each quotient.**

9)  $\frac{-4}{9} \div 2$

10)  $\frac{3}{5} \div \frac{-3}{14}$

11)  $\frac{3}{5} \div \frac{-5}{6}$

12)  $\frac{-4}{7} \div \frac{5}{14}$

**Simplify each. Write your answer as a mixed number when possible.**

13)  $\frac{9}{54}$

14)  $\frac{6}{18}$

15)  $\frac{8}{12}$

16)  $\frac{54}{36}$

## Page 2: Two-Step/Multi-Step Equations

Date \_\_\_\_\_

Solve each equation.

1)  $5 + \frac{r}{2} = 9$

2)  $-12x + 10 = 46$

3)  $77 = 5n + 2$

4)  $11 + \frac{k}{4} = 16$

5)  $-7 + \frac{k}{5} = -10$

6)  $-6 = 4a - 2a$

7)  $6 = -3p + 6p$

8)  $-4m - 6(m - 6) = 66$

9)  $-6 - 6(5r - 4) = 198$

10)  $-3(-8x + 6) = 6x - 36$

11)  $-4(6a - 1) = 33 + 5a$

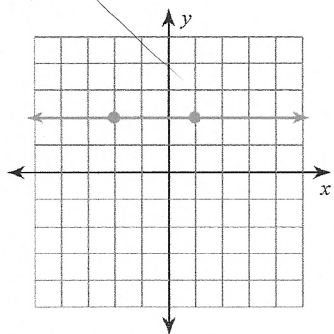
12)  $-2(a - 7) - 5 = -3a + 10(a - 9)$

Page 3: Slope of a line/Graph a line given equation

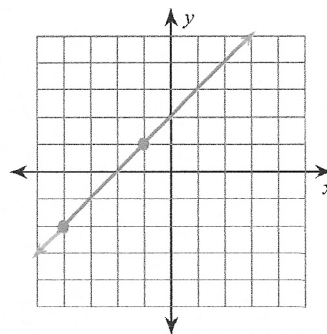
Date \_\_\_\_\_

Find the slope of each line.

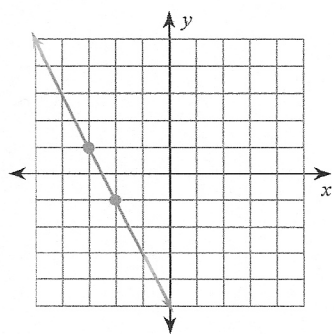
1)



2)



3)



Find the slope of the line through each pair of points.

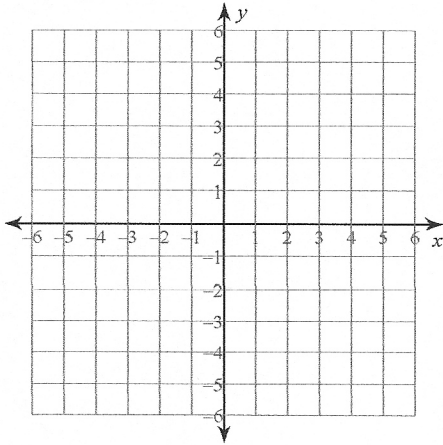
4)  $(10, 12), (-17, -9)$

5)  $(6, 8), (9, 1)$

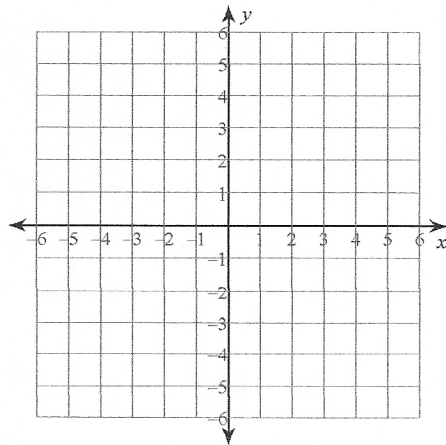
6)  $(-7, -20), (5, -20)$

Sketch the graph of each line.

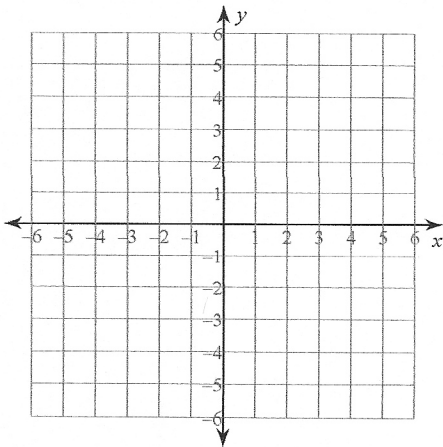
7)  $y = -\frac{9}{5}x - 4$



8)  $y = \frac{4}{5}x + 1$



9)  $x = 5$



## Page 4: Slope-Intercept/Standard Forms

Date \_\_\_\_\_

**Write the slope-intercept form of the equation of each line.**

1)  $x - y = 4$

2)  $7x - 12y = 49$

3)  $x = 7$

4)  $2x - y = 2$

5)  $4x - y = -2$

6)  $3x - 2y = -6$

7)  $x = 4$

8)  $4x - 5y = -15$

9)  $x + 6y = -30$

10)  $11x - 7y = 28$

11)  $y = -4$

12)  $8x - 5y = -10$