

Summer Review Assignments for Geometry

Due: First Day of School

Dear Parents and Students:

We hope that your family is enjoying a great summer with plenty of relaxation and fun. Your teachers for next year are already making plans for our new school year, and we are all looking forward to meeting you in August. **Please read through this entire letter.**

These summer assignments are designed to be a review of essential math skills. They include only problems covering math concepts and skills that are necessary for success in Geometry. **There will be an assessment covering these essential skills during the first week of class. The grade will be counted as a Quiz grade in the semester grade.**

We recommend that you take at least 10 days to complete these assignments. The summer review work will prepare students for the assessment, and allow teachers more instructional time and the ability to progress into new material sooner.

Parent Instructions:

- 1) Please print these summer assignments and give them to your student—making sure that he or she understands the directions for completing the work that are printed on the next page.
- 2) **Parents, so that you know how well-prepared your student is for Geometry, we ask that YOU check the answers and mark incorrect answers with a colored pen, pencil, or marker. The answers are included at the end of this packet.**
- 3) Write the grade in the UPPER RIGHT corner (number correct divided by number attempted times 100). **Also, please sign your name to indicate that the work was checked by you.** If your student misses 20% or more of the problems, you need to make sure he or she gets help to learn these skills now. There will not be class time available to re-teach these essential skills once school begins in August. You, a more experienced sibling, or a tutor could provide the needed help.
- 4) Give the assignment back to your student and assign the incorrect problems again—the work should be done to the right of the original work. If the student needs help from a tutor, it is acceptable for this part of the assignment to be done with the help of the tutor.

Summer Review Assignments for Geometry

Student Instructions:

- 1) Please work **all** of the problems in these 10 summer assignments to be sure you understand the concepts.
- 2) Do your work **NEATLY** and **IN PENCIL** on notebook paper, working **ONLY** down the left side of each page.
- 3) Print your name on the top line of the notebook paper next to the right margin. Staple together all sheets of a lesson in the upper left corner.
- 4) Copy the problem.
- 5) Show all the steps of work needed to get your answer.
- 6) **BOX** your answer.
- 7) **When you complete a lesson, give it back to your parent who will check your answers.**
- 8) Your parent will return the lesson to you so that you can re-work any problems that you miss. You will do this work to the right of the original work. If you need help from a tutor, it is acceptable for this part of the assignment to be done with the help of the tutor.
- 9) **Thanks for your hard work on these summer assignments. THIS WORK IS DUE ON THE FIRST DAY OF SCHOOL. This homework grade will be counted in the semester grade.**

Name: _____

Geometry Summer Review Assignment #1

OPERATIONS WITH RATIONAL NUMBERS

Please work these problems NEATLY and IN PENCIL on notebook paper. SHOW YOUR WORK!

Do not use a calculator. You will not be allowed to use a calculator on the Test of Essential Skills.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

Find the sum or difference.

1. $12\frac{2}{11} - 2\frac{3}{11}$

a. $9\frac{1}{12}$

b. $2\frac{1}{5}$

c. $9\frac{10}{11}$

d. $14\frac{5}{11}$

2. $\frac{8}{9} - \frac{1}{12}$

a. $\frac{89}{108}$

b. $\frac{22}{27}$

c. 1

d. $\frac{29}{36}$

3. $8\frac{5}{24} - \frac{5}{8}$

a. 8

b. $7\frac{7}{12}$

c. $8\frac{5}{6}$

d. $8\frac{7}{12}$

4. $145.68 + (-16.9)$

a. 162.58

b. 128.78

c. 2.332

d. 143.99

Geometry #1

Find the product.

5. $5\frac{3}{7} \cdot \left(-4\frac{3}{8}\right)$

a. $-23\frac{3}{4}$

c. $-20\frac{9}{56}$

b. $-11\frac{7}{8}$

d. $-20\frac{7}{8}$

Find the quotient.

6. $4\frac{1}{2} \div 1\frac{1}{8}$

a. $1\frac{7}{9}$

c. 1

b. $2\frac{2}{3}$

d. 4

Find the sum or difference. Simplify if possible.

7. $\frac{-7}{10} + \frac{-11}{15}$

8. $4\frac{2}{3} + 9\frac{3}{4}$

9. $\frac{1}{5} + \frac{6}{20}$

10. $192.520 - (-916.453)$

Find the product. Simplify if possible.

11. $6\frac{2}{3} \cdot 5\frac{1}{2}$

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

13. $\frac{1}{7} \cdot \frac{8}{9}$

Geometry #1

Find the quotient. Simplify if possible.

14. $5 \div \frac{1}{3}$

15. $2\frac{1}{2} \div 3$

16. $4\frac{1}{3} \div \left(-2\frac{1}{4}\right)$

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

Find the product or quotient. Simplify if possible.

18. $-5 \cdot 2.69$

19. $-49.53 \div (-3.9)$

20. $-0.68 \cdot (-0.2)$

Name: _____

Geometry Summer Review Assignment #2

PROBABILITY AND PERCENTS

Please work these problems NEATLY and IN PENCIL on notebook paper. SHOW YOUR WORK!

You may use a calculator on the percent problems, but you will not be allowed to use a calculator on the Test of Essential Skills.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

1. After the introduction of a new soft drink, a taste test is conducted to see how it is being received. Of those who participated, 72 said they preferred the new soft drink, 64 preferred the old soft drink, and 64 could not tell any difference. What is the probability that a person in this survey, chosen at random, preferred the new soft drink?
 - a. $\frac{9}{25}$
 - b. $\frac{9}{8}$
 - c. $\frac{9}{16}$
 - d. $\frac{9}{17}$
2. A coin is tossed and a die is rolled. What is the probability that the coin shows tails and the die shows an odd number?
 - a. $\frac{1}{6}$
 - b. $\frac{1}{8}$
 - c. $\frac{1}{9}$
 - d. $\frac{1}{4}$
3. What number is 0.52% of 325?

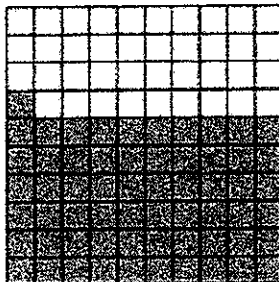
a. 6.25	c. 169
b. 1.69	d. 625

Geometry #2

4. What is 310% of 94?

- a. 292.34
- b. 291.4
- c. 2923.4
- d. 29.14

5. What percent of the large square is shaded?



- a. 29%
 - b. 39%
 - c. 61%
 - d. 71%
6. Mica and Carrie had dinner at Joe's Hangout. The bill totaled \$23.36 before tax. The service was excellent, so they decided to leave a 20% tip. What is 20% of \$23.36, to the nearest cent?
- a. \$0.97
 - b. \$1.17
 - c. \$4.67
 - d. \$4.47

Short Answer

7. You spin a spinner that is divided into eight equal sections labeled 1 through 8. Find the probability of landing on a multiple of 5.
8. A special deck of cards contains three each of the numbers from 1 to 8 and four each of the numbers 9 and 10. One card is drawn at random from the deck. What is the probability that the card is a number greater than 7?

Use a proportion to solve.

9. What number is 80% of 60?
10. 2565 is what percent of 450?
11. 38 is 0.02% of what number?
12. 312 is 65% of what number?
13. If you have read 45% of a 500-page book, how many pages have you read?

Geometry #2

14. Quincy wants to buy a bicycle that costs \$160.00. His parents say Quincy must raise 60% of the money himself. How much money must Quincy raise?
15. Sylvia teaches music to 63 students who are under 10 years of age. The students under 10 years of age make up 35% of all her music students. How many students does Sylvia teach music?
16. Luis makes 4% commission on his sales in a sporting goods store. For a \$70 purchase, how much commission does Luis earn?
17. Using a photocopier, Jenna enlarged a diagram by 180%. The dimensions of the final diagram were 9.00 centimeters by 7.20 centimeters. What were the dimensions of the original diagram?
18. A population of rabbits is 48% male. If there are 150 rabbits in the population, how many are male?
19. A waiter typically receives about 15% of a food bill as a tip. To earn a total of \$50 in tips, about how much must the total of all food bills be?
20. A customer left a tip of \$1.75 for a \$12.50 meal. What percent of the bill was the waiter's tip?

Geometry Summer Review Assignment #3**SIMPLIFYING AND EVALUATING EXPRESSIONS**

Please work these problems NEATLY and IN PENCIL on notebook paper. SHOW YOUR WORK!

Do not use a calculator. You will not be allowed to use a calculator on the Test of Essential Skills.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

Simplify the expression.

1. $\frac{4k}{11} - \frac{4k}{9}$

a. $-2k$

c. $-\frac{8k}{99}$

b. $\frac{k}{2}$

d. $\frac{2k}{99}$

2. Evaluate $-1\frac{3}{5}b$ when $b = -\frac{9}{8}$.

a. $1\frac{1}{3}$

c. $1\frac{4}{5}$

b. $-1\frac{1}{3}$

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

3. Evaluate the expression $3.6y \div x$ when $x = 1.6$ and $y = 4$.

a. 9

c. 14.4

b. 1.44

d. 0.9

Evaluate the expression.

4. $4 \times (4.6 + 2.4) - 2$

a. 18.8

c. 21.8

b. 20

d. 26

5. What is the value of the expression $3^3 - 2^3 - 2 \times 3$?

a. 13

c. -3

b. 25

d. 51

Geometry #3

Use the Distributive Property to write an equivalent expression.

6. $3(4x-7y)$
a. $12x-21y$ c. $12x-7y$
b. $4x-7y$ d. $12x+21y$
7. $-4(x-4)$
a. $-4x-4$ c. $-4x+4$
b. $-4x-16$ d. $-4x+16$

Simplify.

8. $3x+1-4x+4$
a. $7x-3$ c. $-x-3$
b. $7x+5$ d. $-x+5$
9. $15(12+w-7)$
a. $15w+75$ c. $w+75$
b. $w+173$ d. $15w+173$
10. $7x+6(x+5)+5(x+2)$
a. $18x+40$
b. $8x+20$
c. $18x+7$
d. $18x+20$
11. Bill wants to simplify this expression.
 $5(3x-2y)+2(x+2y)-3(3x-2y)$
Which of the following expressions is equivalent to the expression above?
a. $8x-12y$ c. $8xy$
b. $8x-8y$ d. $8x$

If possible, combine like terms to simplify the expression.

12. $-5x+14x-x$
a. $9x^2-x$ c. can't be simplified
b. $70x^3$ d. $8x$

Geometry #3

Short Answer

Simplify the expression.

13. $\frac{12}{5} + \frac{8}{9m}$

Evaluate the expression when $x = 1.6$ and $y = 4$.

14. $\frac{3y}{x+1.4}$

Evaluate the expression.

15. $24 \div [2 \cdot (3.7 - 1.7)]$

16. $7 \times 32 \div 2^3$

Simplify.

17. $4.2(2x+3y) + 2.1(3x-4y) - 2x$

If possible, combine like terms to simplify the expression.

18. $2rt + 2r + 7rt$

19. $-4(x+3)$

20. Simplify the expression $2(2-x) - 3x$.

21. Simplify the expression $-9[5x+6(-9+x)]$.

Other

22. On a test, Manny writes $\frac{25+3x}{4} + \frac{x}{6} = \frac{25+4x}{10}$. Is Manny's answer correct? *Explain* why or why not.

Name: _____

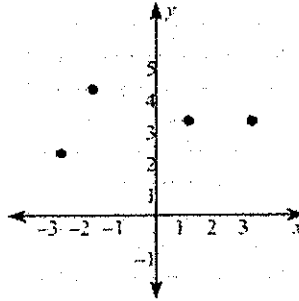
Geometry Summer Review Assignment #4

GRAPHING POINTS AND LINES

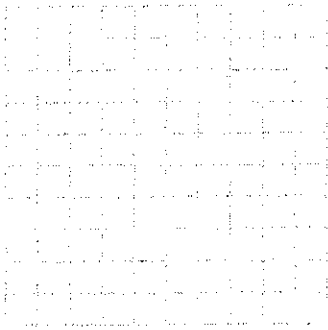
Please work these problems NEATLY and IN PENCIL on GRAPH paper. SHOW YOUR WORK!

Do not use a calculator. You will not be allowed to use a calculator on the Test of Essential Skills.

1. Give the coordinates of each point in the coordinate plane.



2. Plot the points $(4, 0)$, $(-2, -3)$, $(3, 1)$, and $(-2, 2)$.

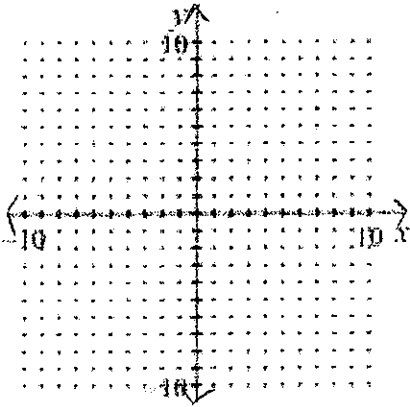


3. Which point, $\left(\frac{5}{2}, 3\right)$ or $\left(\frac{3}{2}, 20\right)$, is on the graph of $2x - \frac{2}{3}y = 3$?

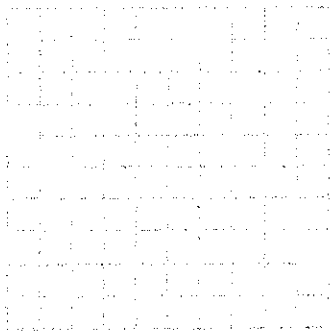
Geometry #4

Graph the equation.

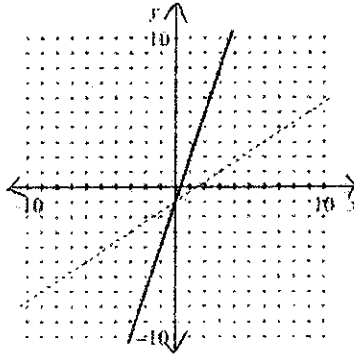
4. $4x - 8 = 0$



5. Sketch the line given by $4x + 3y = 12$. Label the x - and y -intercepts.



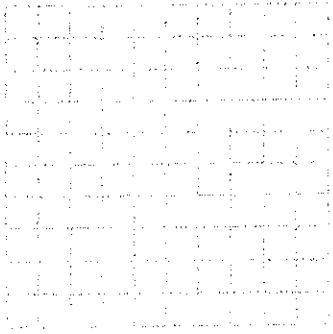
6. The solid line is the graph of the equation $y = 3x - 1$. The dashed line is the result of changing just one of the numbers, 3 or - 1, in the equation for the solid line.



Which number was changed and what was it changed to?

Geometry #4

7. Plot the points $(3, -5)$ and $(5, 4)$. Find the slope of the line passing through the points.



8. Find the slope of the line that passes through the points $(-1, -3)$ and $(-3, -3)$.

Find the x -intercept.

9. $4x + 5y = 8$

Find the y -intercept.

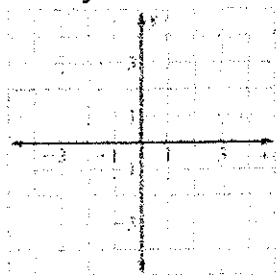
10. $4y + 9 = 5x$

Find the slope of the line passing through the points.

11. $(-10, -7), (1, -2)$

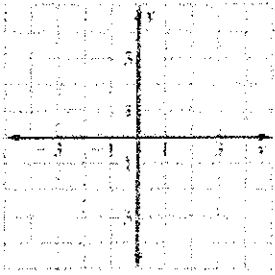
Write the equation in slope-intercept form. Then graph the equation.

12. $6x - 4y = 3$



Geometry #4

13. $2y + 5x = 10$



Decide whether the graphs of the two functions are parallel lines.

14. $f(x) = 15x + 4$, $f(x) = 5x + 1$

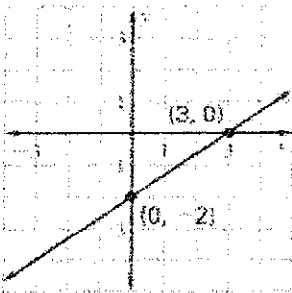
Write an equation of the line in slope-intercept form.

15. The slope is -3 ; the y -intercept is 5 .

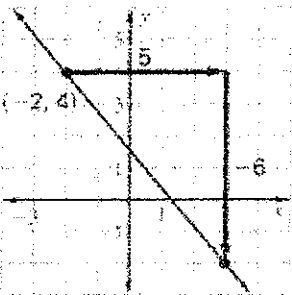
16. The slope is 4 ; the y -intercept is 0 .

Write an equation of the line shown in the graph.

17.



18.



Geometry #4

Write an equation of the line that passes through the point and has the given slope. Write the equation in slope-intercept form.

19. $(3, 2)$, $m = \frac{1}{2}$

Write an equation of the line that is parallel to the given line and passes through the given point.

20. $y = -3x + 2$, $(2, 3)$

21. Write an equation of a line that is perpendicular to $y = -3x + 5$ and passes through $(4, 3)$.

Write the equations in standard form of the horizontal and vertical lines that pass through the point.

22. $(2, 4)$

Name: _____

Geometry Summer Review Assignment #5

SOLVING LINEAR EQUATIONS

Please work these problems NEATLY and IN PENCIL on notebook paper. SHOW ALL STEPS OF YOUR WORK!

Do not use a calculator. You will not be allowed to use a calculator on the Test of Essential Skills.

Solve the equation.

1. $\frac{7}{2}x = 28$

2. $2x - (-5) = 23$

3. $\frac{3}{15}y + 15 = 0$

4. $-3n + 18 + 5n = 38$

5. $\frac{x}{2} + \frac{x}{4} = 5$

6. $\frac{9x}{3} + 11x = 28$

7. $\frac{25x}{5} - 7x = 12$

8. $-\frac{21x}{7} - 5x = 24$

9. $5n - 2(n - 2) = -11$

10. $8x = 44$

11. $4n - 2(3 - n) = -13$

12. $5n - 2(2 - n) = -7$

13. $\frac{1}{2}(y + 1) = 9$

14. $\frac{1}{4}(3y + 2) = 7$

15. $3 - 4z = -5 + 8z$

Geometry #5

16. $5x + 14 - 2x = 9 - (4x + 2)$

17. $7x - 29 - 21x = 3 - (12 + 2x)$

Solve the proportion.

18. $\frac{8}{2} = \frac{2}{p}$

19. $\frac{18}{x-2} = \frac{4}{3}$

20. $\frac{3}{x-4} = \frac{5}{x}$

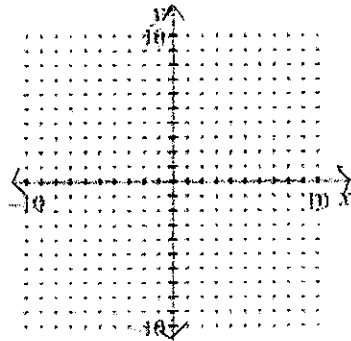
Geometry Summer Review Assignment #6**GRAPHING LINEAR INEQUALITIES**

Please graph these inequalities **NEATLY** and **IN PENCIL** on GRAPH paper. Use a ruler to draw straight lines, and shade the correct regions with either colored pencils or highlighters.

Graph the system of inequalities.

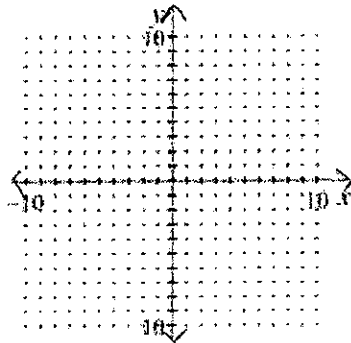
1. $y \geq -2x - 1$

$y < -2$



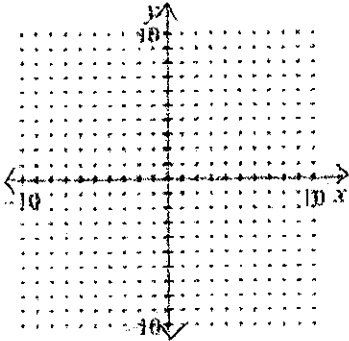
2. $y \geq x - 4$

$y \leq -2x - 8$

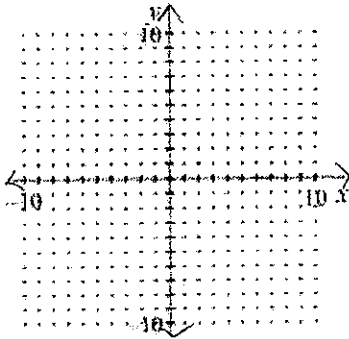


Geometry #6

3. $y \leq -2x - 1$
 $y \leq 3$

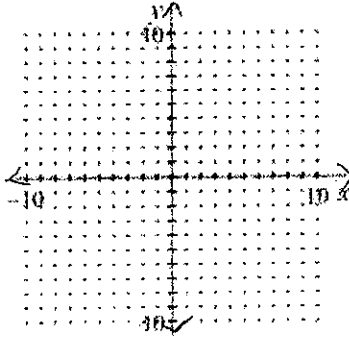


4. $2x + 5y \geq 10$, $x \leq y$, $x \leq 8$



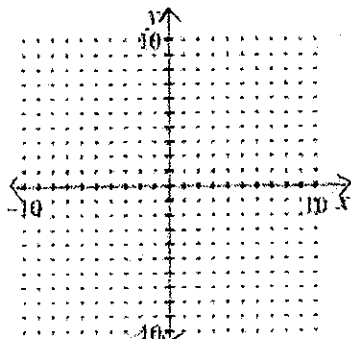
Graph the inequality.

5. $y \leq 4x + 4$

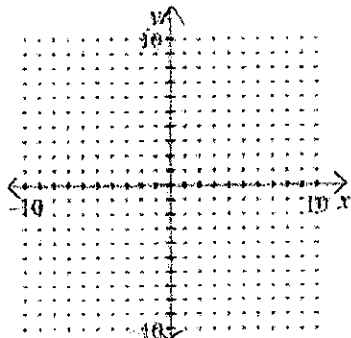


Geometry #6

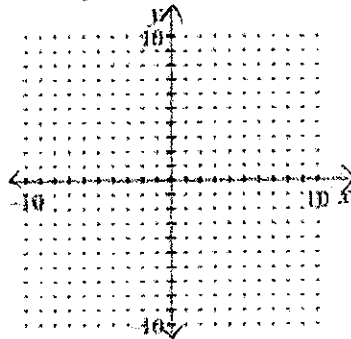
6. $y \geq -\frac{1}{2}x$



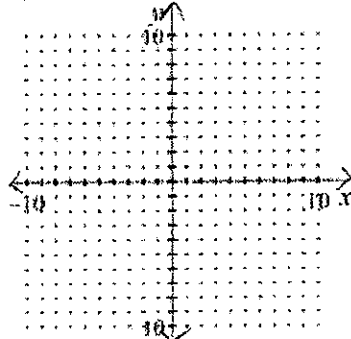
7. Graph $y \geq -\frac{2}{3}x$



8. $2x - 7y > -14$

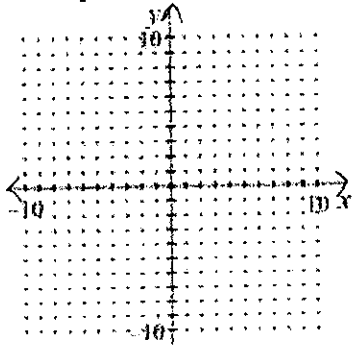


9. $-y \geq 2x - 7$

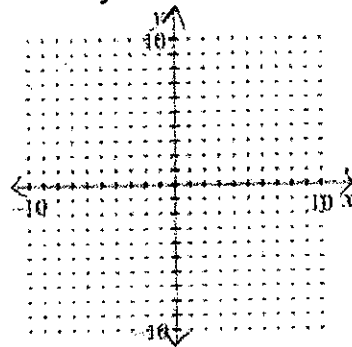


Geometry #6

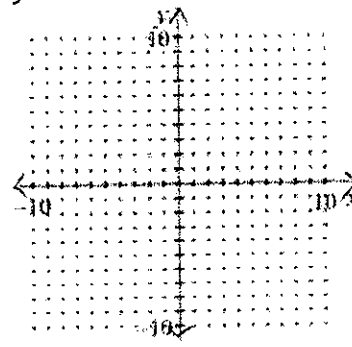
10. $3x - 2y \leq 6$



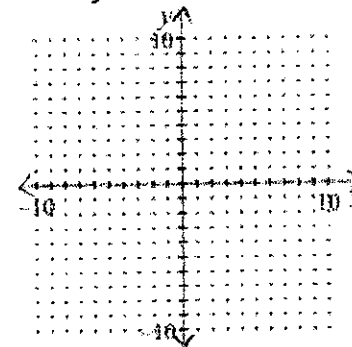
11. $-2x + 3y > 6$



12. $y \leq 1$

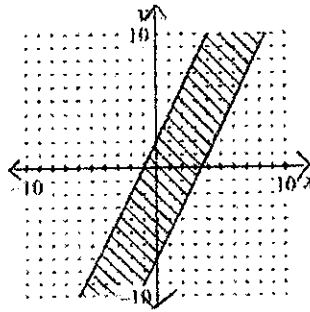


13. $2x - 3y \leq 6$



Geometry #6

14. Write a system of linear inequalities that defines the shaded region.



Name: _____

Geometry Summer Review Assignment #7

SYSTEMS OF LINEAR EQUATIONS

Please work these problems NEATLY and IN PENCIL on notebook paper. SHOW YOUR WORK!

Do not use a calculator. You will not be allowed to use a calculator on the Test of Essential Skills.

Solve the system using substitution.

1. $x+4y=-1$
 $2x-y=7$

2. $3x-y=15$
 $x+2y=-2$

3. $x-4y=6$
 $2x+y=-4$

4. $-2x+y=-1$
 $3x=9-y$

Solve the system by elimination.

5. $4x+5y=6$
 $3x-5y=22$

6. $-3x-3y=9$
 $3x+8y=9$

7. $2x+4y=-3$
 $4x-4y=6$

8. $3x-2y=3$
 $6x+2y=3$

Geometry #7

Solve the linear system.

9. $3x + 2y = -7$
 $x + 2y = -9$

10. $9x - 7y = -77$
 $-3x - 9y = 3$

11. $4x + 3y = -2$
 $3x + 2y = -3$

12. $5x - 2y = 3$
 $-x + 6y = -2$

13. $6x - 4y = -1$
 $2x + 5y = 1$

14. $2x - 6y = -18$
 $3x + 7y = 37$

15. $3x - 4y = 21$
 $4x + 2y = 6$

16. $3x + 2y = -5$
 $4x - 3y = 16$

Geometry Summer Review Assignment #8**PROPERTIES OF EXPONENTS AND SIMPLIFYING RADICAL EXPRESSIONS**

Please work these problems NEATLY and IN PENCIL on notebook paper. SHOW YOUR WORK!

Do not use a calculator. You will not be allowed to use a calculator on the Test of Essential Skills.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

Simplify the expression. Write your answer as a power.

1. $(-3)^4 \cdot (-3)^4$

a. $(-3)^8$

b. $(-3)^0$

c. $(-3)^{16}$

d. -3^{16}

2. $7^5 \cdot 7^6$

a. 49^{11}

b. 49^{30}

c. 7^{30}

d. 7^{11}

3. $\frac{(-6)^{12}}{(-6)^3}$

a. $(-6)^4$

b. -6^4

c. $(-6)^9$

d. $(-6)^{15}$

Simplify the expression.

4. $\frac{e^4}{e^3}$

a. none of these

b. e

c. e^{12}

d. e^7

5. $5a^3b^4 \cdot 5^2a^3b^5$

a. $5^2a^3b^9$

b. $5a^9b^{20}$

c. $5^3a^6b^9$

d. $5^3a^9b^{20}$

Geometry #8

6. $\frac{m^9 p^{16}}{m^3 p^{12}}$

a. $m^{12} p^{28}$

c. $\frac{1}{m^6 p^4}$

b. mp^4

d. $m^6 p^4$

Simplify. Write the expression using only positive exponents.

7. $x^{-2} \cdot x^5$

a. $\frac{1}{x^{10}}$

c. $\frac{1}{x^3}$

b. x^{10}

d. x^3

8. $\frac{x^{-5}}{x^9}$

a. $\frac{1}{x^{14}}$

c. $\frac{1}{x^4}$

b. x^4

d. x^{14}

Evaluate the expression.

9. $\sqrt{121}$

a. 121

c. 1.1

b. 110

d. 11

10. $\sqrt{\frac{49}{64}}$

a. $\frac{7}{64}$

c. $\frac{7}{8}$

b. $\frac{7}{32}$

d. $\frac{9}{10}$

Geometry #8

Approximate the square root to the nearest whole number.

11. $\sqrt{45}$

- a. 70
- b. 7

- c. 9
- d. 4.5

Simplify.

12. $\sqrt{300}$

- a. $\sqrt{30}$
- b. $10\sqrt{3}$

- c. $10\sqrt{30}$
- d. $3\sqrt{10}$

13. $\sqrt{12} \cdot \sqrt{10}$

- a. $4\sqrt{30}$
- b. $3\sqrt{20}$

- c. $2\sqrt{30}$
- d. $\sqrt{120}$

14. $11\sqrt{25}$

- a. 16
- b. 27.5

- c. 137.5
- d. 55

15. $\sqrt{30} \cdot \sqrt{12}$

- a. $12\sqrt{10}$
- b. $6\sqrt{10}$

- c. $9\sqrt{20}$
- d. $3\sqrt{40}$

16. $4\sqrt{3} - \sqrt{64} + 6\sqrt{27}$

- a. $22\sqrt{3} - 8$
- b. $9\sqrt{94}$

- c. $22\sqrt{3} - 8 + 6\sqrt{27}$
- d. $14\sqrt{3}$

17. Identify the simplified form of the expression $\sqrt{45}$.

- a. $15\sqrt{3}$
- b. $3\sqrt{15}$

- c. $3\sqrt{5}$
- d. $5\sqrt{3}$

18. Which is the simplified form of $8\sqrt{5} - (-7\sqrt{5}) - 4\sqrt{5}$?

- a. $\sqrt{55}$
- b. $19\sqrt{5}$

- c. $11\sqrt{5}$
- d. 55

Geometry #8

Short Answer

Simplify the expression.

19. $\frac{5x^7y^8 \cdot 6xy^3}{3x^2y}$

Evaluate the expression.

20. 4^0

Name: _____

Geometry Summer Review Assignment #9

MULTIPLYING AND FACTORING POLYNOMIALS

Please work these problems NEATLY and IN PENCIL on notebook paper. SHOW YOUR WORK!

Find the product.

1. $(2p+7)(2p-7)$

2. $(4x+7y)^2$

3. $(4x+2)(6x^2)$

4. $(x-4)(x-5)$

5. $(4x-5)(x+2)$

6. $(x-3)(x^2+x+1)$

7. $(x+5)(x-5)$

8. $(x-8)^2$

Factor the expression.

9. $x^2 + 11x + 30$

10. $x^2 - 3x - 40$

11. $x^2 - 9x + 14$

12. $x^2 + 2x - 35$

13. $5x^2 + 16x + 3$

14. $12x^2 + 14x + 4$

15. $x^2 - 16$

16. $x^2 - 12x + 36$

17. $x^2 + 10x + 25$

18. $3x^3 + 9x^2 + 2x$

Geometry #9

19. $x^3 - 3x^2 + 2x - 6$

20. $x^3 - x^2 + 5x - 5$

Geometry Summer Review Assignment #10**QUADRATIC EQUATIONS AND FUNCTIONS**

Please work these problems NEATLY and IN PENCIL on notebook paper. SHOW YOUR WORK!

Do not use a calculator. You will not be allowed to use a calculator on the Test of Essential Skills.

Solve the equations by finding square roots. Remember that taking the square roots of both sides of an equation requires both a positive and a negative square root. Simplify radicals, if necessary.

1. $x^2 - 7 = 29$
2. $\frac{1}{6}x^2 = 54.$
3. $\frac{1}{3}x^2 = 48.$
4. $\frac{1}{12}x^2 = 75.$
5. $3(x+6)^2 = 33.$

Solve the equation by completing the square.

6. $x^2 + x = 2$
7. Solve using the quadratic formula: $4x^2 - 8x + 1 = 0.$ Simplify radicals, if necessary.

Use the quadratic formula to solve the equation. Simplify radicals, if necessary.

8. $0 = x^2 - 2x - 15$
9. $0 = x^2 + 10x + 24$

Set each of these quadratic equations equal to zero and solve by factoring.

10. $2x^2 - x = 1$
11. $x^2 - x = 2$
12. $x^2 - x = 6$

Geometry #10

Solve each quadratic equation. Use whichever method you choose. Simplify radicals, if necessary.

13. $x^2 - 8x + 11 = 0$

14. $x^2 = 100$

15. $4x^2 - 25 = 0$

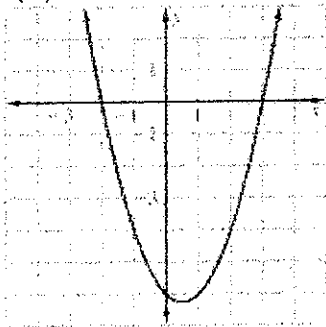
Find the x-intercepts of the graph of the function. At each x-intercept, $y=0$, so set each quadratic equal to zero and solve.

16. $y = x^2 - 12x + 35$

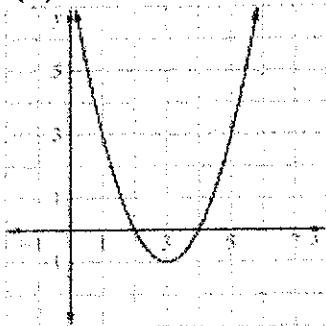
17. $y = x^2 - 7x + 6$

Use the graph to find the zeros of the function. The zeroes are the x-intercepts. At these points, the value of the quadratic function--the y-value--is equal to zero.

18. $f(x) = x^2 - x - 6$



19. $f(x) = x^2 - 6x + 8$



20. How would you translate the graph of $y = x^2$ to produce the graph of $y = x^2 - 4$? In other words, how does the graph of the parabola move?

Geometry #10

Sketch the graph of the function. Label the vertex.

21. $y = 3x^2$

22. $y = -x^2$

23. $y = -2x^2 + 1$

24. $y = 0.5x^2 - 3$

25. $y = x^2 + 2x + 1$

26. $y = x^2 + 4x + 1$

Geometry Summer Review Assignment #1

Answer Section

MULTIPLE CHOICE

1. C
2. D
3. B
4. B
5. A
6. D

SHORT ANSWER

7. $-1\frac{13}{30}$
8. $14\frac{5}{12}$
9. $\frac{1}{2}$
10. 1108.973
11. $36\frac{2}{3}$
12. $-3\frac{1}{8}$
13. $\frac{8}{63}$
14. 15
15. $\frac{5}{6}$
16. $-1\frac{25}{27}$
17. $-\frac{2}{3}$
18. - 13.45
19. 12.7
20. 0.136

Geometry Summer Review Assignment #2

Answer Section

MULTIPLE CHOICE

1. A
2. D
3. B
4. B
5. C
6. C

SHORT ANSWER

7. $\frac{1}{8}$
8. $\frac{11}{32}$
9. 48
10. 570%
11. 190,000
12. 480
13. 225
14. \$96
15. 180
16. \$2.80
17. 5 cm × 4 cm
18. 72
19. \$333.33
20. 14%

Geometry Summer Review Assignment #3

Answer Section

MULTIPLE CHOICE

1. C
2. C
3. A
4. D
5. A
6. A
7. D
8. D
9. A
10. A
11. D
12. D

SHORT ANSWER

13. $\frac{40 + 108m}{45m}$
14. 4
15. 6
16. 28
17. $12.7x + 4.2y$
18. $9rt + 2r$
19. $-4x - 12$
20. $4 - 5x$
21. $-99x + 486$

OTHER

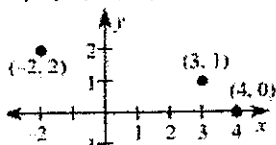
22. No, Manny is not correct. He added the fractions without first finding a common denominator. Manny must rewrite each term using the least common denominator of 12. So,

$$\frac{25+3x}{4} + \frac{x}{6} = \frac{75+9x}{12} + \frac{2x}{12} = \frac{75+11x}{12}$$

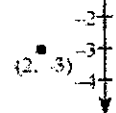
Geometry Summer Review Assignment #4 Answer Section

SHORT ANSWER

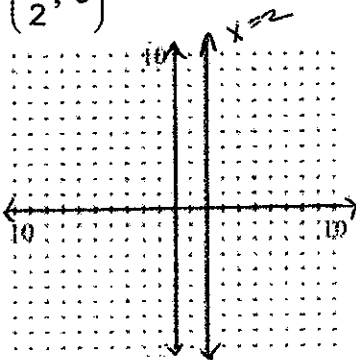
1. $(1, 3)$, $(-3, 2)$, $(3, 3)$, $(-2, 4)$



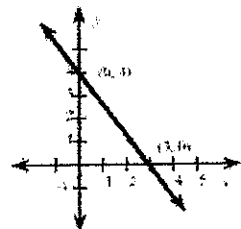
2.



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



4.

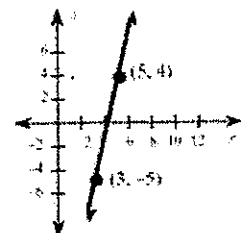


5.

6. The 3 was changed to $\frac{2}{3}$.

7. Slope: $\frac{9}{2}$

8.



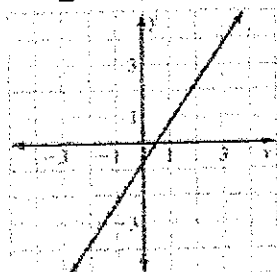
8. 0
no x-intercept

9. 2

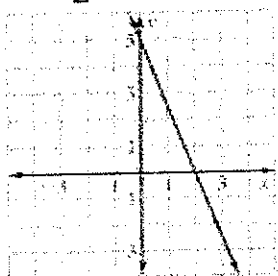
10. $\frac{9}{4}$

11. $m = \frac{5}{11}$

12. $y = \frac{3}{2}x - \frac{3}{4}$



13. $y = -\frac{5}{2}x + 5$



14. no

15. $y = -3x + 5$

16. $y = 4x$

17. $y = \frac{2}{3}x - 2$

18. $y = -\frac{6}{5}x + \frac{8}{5}$

19. $y = \frac{1}{2}x + \frac{1}{2}$

20. ~~$y = -3x + 9$~~

$y = -3x + 9$

21. $y = \frac{1}{3}x + \frac{5}{3}$

22. $x = 2, y = 4$

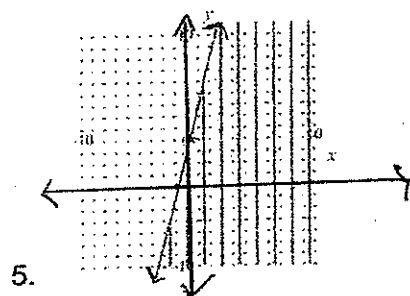
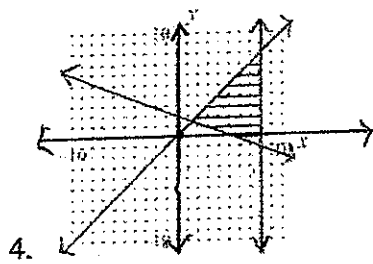
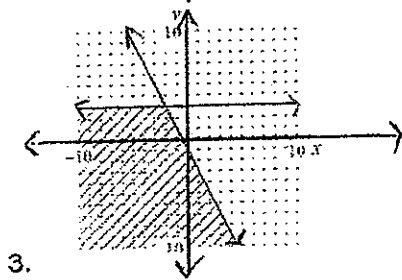
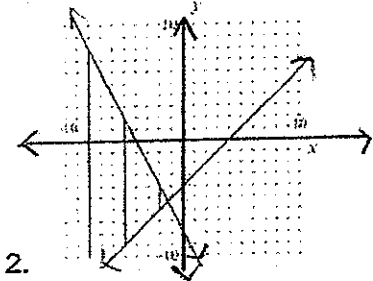
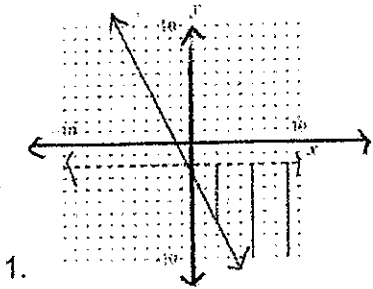
Geometry Summer Review Assignment #5
Answer Section

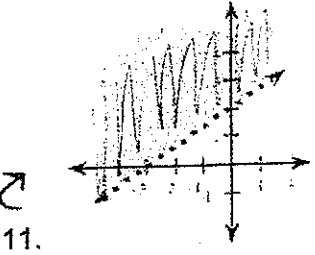
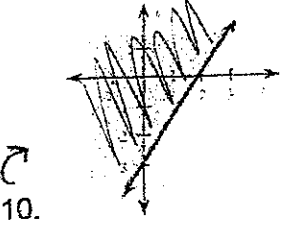
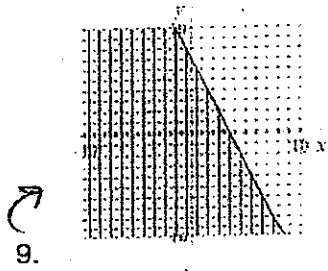
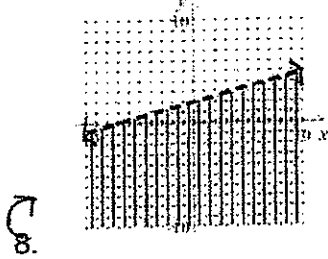
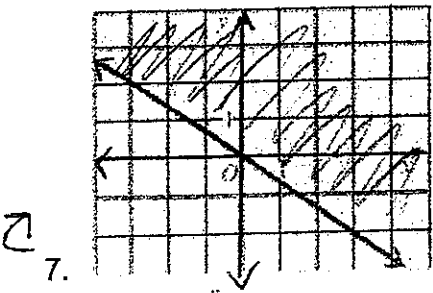
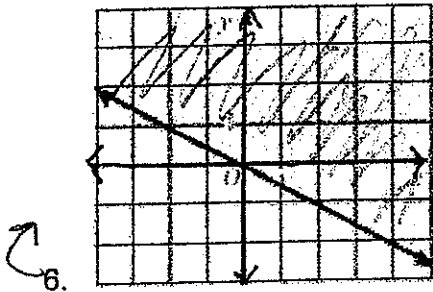
SHORT ANSWER

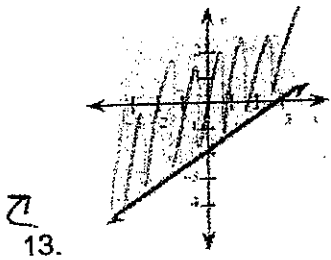
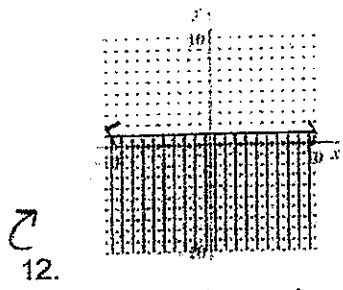
1. 8
2. ~~14~~ 9
3. -75
4. 10
5. $\frac{20}{3}$
6. 2
7. -6
8. -3
9. -5
10. $\frac{11}{2}$
11. $-\frac{7}{6}$
12. $-\frac{3}{7}$
13. 17
14. $\frac{26}{3}$
15. $\frac{2}{3}$
16. -1
17. $-\frac{5}{3}$
18. $\frac{1}{2}$
19. $\frac{31}{2}$
20. 10

Geometry Summer Review Assignment #6 Answer Section

SHORT ANSWER







14. $y \leq 2x + 2$
 $y \geq 2x - 7$

Geometry Summer Review Assignment #7

Answer Section

SHORT ANSWER

1. $(3, -1)$

2. $(4, -3)$

3. ~~$\left(\frac{10}{9}, \frac{16}{9}\right)$~~ $\left(-\frac{10}{9}, -\frac{16}{9}\right)$

4. $(2, 3)$

5. $(4, -2)$

6. ~~$(-6, 3)$~~ $\left(-\frac{35}{5}, \frac{18}{5}\right)$

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

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

9. ~~$(1, 25)$~~ $(1, -5)$

10. $(-7, 2)$

11. $(-5, 6)$

12. $\left(\frac{1}{2}, -\frac{1}{4}\right)$

13. $\left(-\frac{1}{38}, \frac{4}{19}\right)$

14. $(3, 4)$

15. $(3, -3)$

16. $(1, -4)$

Geometry Summer Review Assignment #8
Answer Section

MULTIPLE CHOICE

1. A
2. D
3. C
4. B
5. C
6. D
7. D
8. A
9. D
10. C
11. B
12. B
13. C
14. D
15. B
16. A
17. C
18. C

SHORT ANSWER

19. $10x^6y^{10}$
20. 1

Geometry Summer Review Assignment #9

Answer Section

SHORT ANSWER

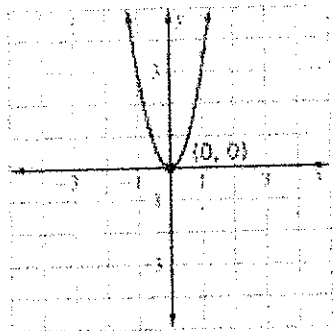
1. $4p^2 - 49$
2. $16x^2 + 56xy + 49y^2$
3. $24x^3 + 12x^2$
4. $x^2 - 9x + 20$
5. $4x^2 + 3x - 10$
6. $x^3 - 2x^2 - 2x - 3$
7. $x^2 - 25$
8. $x^2 - 16x + 64$
9. $(x+6)(x+5)$
10. $(x-8)(x+5)$
11. $(x-7)(x-2)$
12. $(x+7)(x-5)$
13. $(5x+1)(x+3)$
14. ~~$2(3x+1)(x+2)$~~ $2(3x+2)(2x+1)$
15. $(x+4)(x-4)$
16. $(x-6)^2$
17. $(x+5)^2$
18. $x(3x^2 + 9x + 2)$
19. $(x^2 + 2)(x-3)$
20. $(x^2 + 5)(x-1)$

Geometry Summer Review Assignment #10

Answer Section

SHORT ANSWER

1. $x = -6$ and $x = 6$
2. 18, - 18
3. 12, - 12
4. 30, - 30
5. The solutions are $-6 + \sqrt{11} \approx -2.68$ and $-6 - \sqrt{11} \approx -9.32$.
6. $x = -2$ and $x = 1$
7. $\frac{2 - \sqrt{3}}{2}, \frac{2 + \sqrt{3}}{2}$
8. $x = -3$ and $x = 5$
9. $x = -6$ and $x = -4$
10. $1, -\frac{1}{2}$
11. 2, - 1
12. 3, - 2
13. $4 + \sqrt{5}, 4 - \sqrt{5}$
14. 10, - 10
15. $-\frac{5}{2}, \frac{5}{2}$
16. 5 and 7
17. 1 and 6
18. $x = -2$ and $x = 3$
19. $x = 2$ and $x = 4$
20. translate the graph of $y = x^2$ 4 units down



21.

