BISHOP KELLEY
A LIFE PREPARATORY SCHOOL

2019 – 2020

Bishop Kelley High School

Summer Math Program

Course: Geometry A

and Geometry

NAME: _____

DIRECTIONS:

Show all work in the packet.

- Geometry A: A TI-84 or TI-30XIIS calculator is required for this class. Geometry A students are HIGHLY encouraged to purchase a TI-84 series graphing calculator. We recommend purchasing it when prices are lowest, during the back to school sales in August.
- Geometry: A TI-30XIIS calculator is required for this class

- No matter when you have math, this packet is due on the first day of your math class.
- This material will be graded, and points awarded at the discretion of each teacher
- A test on this material will be administered during the first week of the class.
- An additional resource for help with this packet is http://www.khanacademy.org. It provides videos of about 10 minutes in length on hundreds of different math topics.

Math Teachers will be available in C-1 the following dates/times if you need help.

Date	*Time*
Wednesday, July 24th	***8-9:30am***
Monday, July 29th	***8-9:30am***
Tuesday, July 30st	***8-9:30am***

Algebra 1 Review Name_____

© 2019 Kuta Software LLC. All rights reserved.

Geometry Summer Packet

Evaluate each expression using order of operations. Show all work

1) $\dfrac{7-3+1+7}{3}$

2) $5-(6+1+1-5)$

3) $\dfrac{1+2}{5-(3-1)}$

4) $2\cdot 5-\dfrac{12}{6}+3+1-1$

Simplify each expression by distributing and combining like terms. Show all work.

5) $-8(4-4x)$

6) $2v(-10-3v)$

7) $-8+10(4+4k)$

8) $7b^2+8b(2b+3)$

9) $-4(8-b)+b(1-3b)$

10) $-9(-8n-6)-8n(4-5n)$

© 2019 Kuta Software LLC. All rights reserved. Made with Infinite Algebra 1.

Solve each equation. Show all work.

11) $-29 = r - 11$

12) $-22 = -6 - x$

13) $17 + x = 34$

14) $-208 = 16a$

15) $-1 = \dfrac{x - 10}{28}$

16) $2 - 8n = 18$

17) $9 = 1 - 2x + 3x$

18) $m + 4 - 4 = -6$

19) $5(8x - 1) = 235$

20) $140 = -4(5b + 5)$

21) $-7(6n - 5) + 1 = 5n + 36$

22) $4x + 40 = 6(2 + 3x)$

© 2019 Kuta Software LLC. All rights reserved.

Made with Infinite Algebra 1.

23) $2(8 - 3n) = -4(n - 5)$

24) $-2 - (1 - 5n) = -2(n - 2)$

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

25) $(0, -13), (-13, 0)$

26) $(0, 11), (19, 4)$

27) $(13, -11), (17, 9)$

28) $(9, -3), (18, 16)$

Write the slope-intercept form of the equation of the line through the given point with the given slope.

29) through: $(-3, 2)$, slope = $\frac{2}{3}$

30) through: $(-3, 4)$, slope = -7

Write the slope-intercept form of the equation of the line through the given points.

31) through: $(3, 3)$ and $(1, -3)$

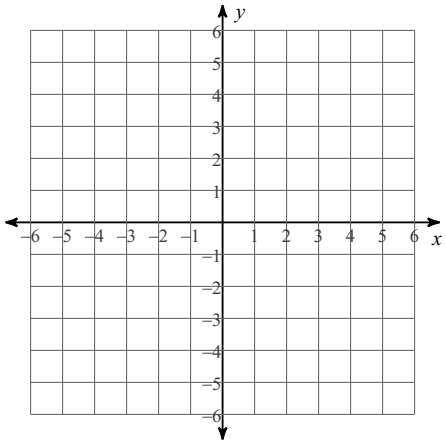
32) through: $(5, 0)$ and $(1, 3)$

© 2019 Kuta Software LLC. All rights reserved.

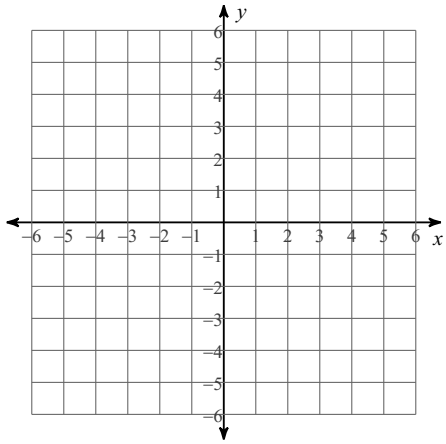
Made with Infinite Algebra 1.

Sketch the graph of each line.

33) $x - 4y = 4$



34) $3x + y = 1$



Solve each system by substitution.

35) $x - 3y = 21$
$-x - 4y = 14$

36) $-x - y = 4$
$x + 2y = -4$

Solve each system by elimination.

37) $-3x - 16y = -26$
$2x + 8y = 12$

38) $4x + 5y = -3$
$7x + 3y = 12$

Simplify using the properties of exponents. Your answer should contain only positive exponents.

39) $2 \cdot 2^2$

40) $3 \cdot 3^{-2}$

© 2019 Kuta Software LLC. All rights reserved. Made with Infinite Algebra 1.

41) $4y^{0} \cdot 2x^{3}y^{3} \cdot 3xy^{2}$

42) $-4x^{3}y^{2} \cdot 3y^{3}$

43) $3m^{4}n^{3} \cdot 4m^{-3}n^{3}$

44) $-2xy^{3} \cdot -4x^{3} \cdot 2x^{4}y^{-3}$

45) $\left(-2a^{-4}b^{-4}\right)^{4}$

46) $\left(-2x^{2}\right)^{2}$

47) $\dfrac{3u^{-3}v^{4}}{3u^{3}}$

48) $\dfrac{x^{0}y^{3}}{-x^{2}y^{-3}}$

49) $\dfrac{2m^{4}n^{2}}{m^{4}n^{-2}}$

50) $\dfrac{-4x^{2}}{-2x^{-3}}$

51) $2xy^{4} \cdot \left(x^{-2}\right)^{-3}$

52) $\left(2x^{-3}\right)^{3} \cdot x$

© 2019 Kuta Software LLC. All rights reserved. Made with Infinite Algebra 1.

53) $mn \cdot \left(-2m^2n^2\right)^{-2}$

54) $\left(-ab \cdot 2b\right)^3$

Find each product. (Hint FOIL)

55) $\left(6x - 8\right)\left(7x - 5\right)$

56) $\left(8v - 8\right)\left(8v - 2\right)$

57) $\left(n - 5\right)\left(2n + 6\right)$

58) $\left(6x + 3\right)\left(6x - 3\right)$

59) $\left(7a + 7\right)\left(7a - 7\right)$

60) $\left(4x - 7\right)^2$

Solve each quadratic equation by factoring.

61) $b^2 = 8 + 2b$

62) $k^2 - 7 = 6k$

63) $x^2 + 9x = -8$

64) $k^2 = -21 - 10k$

© 2019 Kuta Software LLC. All rights reserved. Made with Infinite Algebra 1.

65) $k^2 - 49 = 0$

66) $n^2 = -n + 2$

67) $5r^2 + 33r = -18$

68) $7p^2 - 8p = 12$

69) $3n^2 + 32 = 20n$

70) $7n^2 + 6n = 16$

Simplify each radical expression. Be sure to rationalize denominators when necessary.

71) $\sqrt{175n^4}$

72) $\sqrt{75b^3}$

73) $\sqrt{50x}$

74) $\sqrt{150x}$

75) $2\sqrt{392x^3}$

76) $6\sqrt{12k^2}$

77) $\sqrt{6} \cdot \sqrt{6}$

78) $\sqrt{5} \cdot \sqrt{15}$

© 2019 Kuta Software LLC. All rights reserved. Made with Infinite Algebra 1.

79) $\sqrt{5} \cdot -5\sqrt{2}$

80) $-5\sqrt{10} \cdot -5\sqrt{6}$

81) $\frac{\sqrt{4}}{\sqrt{9}}$

82) $\frac{\sqrt{15}}{\sqrt{48}}$

83) $\frac{\sqrt{4}}{\sqrt{5}}$

84) $\frac{\sqrt{2}}{\sqrt{3}}$

85) $\frac{\sqrt{5}}{\sqrt{3}}$

86) $\frac{3}{\sqrt{5}}$

87) $\frac{\sqrt{2}}{5\sqrt{5}}$

88) $-\frac{2}{\sqrt{5}}$

89) $\frac{5\sqrt{2}}{4\sqrt{3}}$

90) $\frac{\sqrt{3}}{3\sqrt{2}}$

© 2019 Kuta Software LLC. All rights reserved.

Made with Infinite Algebra 1.