

## PAP GEOMETRY SUMMER ASSIGNMENT

This is your summer assignment for PAP geometry. All of these are Algebra I problems. If you need help you can check the following web sites: [www. Algebra-help.com](http://www.Algebra-help.com) or [www. Purplemath.com](http://www.Purplemath.com). You must solve the problems on notebook paper using the method indicated. All work must be clearly shown. Problems like these will be used in geometry this year so it is important to understand the process. This will count as two quiz grades and you will have a test over it the first week of school.

### I. Solving Linear Literal Equations

1. Distance formula - Solve for  $t$ :  $D = rt$
2. Area of a trapezoid - Solve for  $h$ :  $A = \frac{1}{2} h (b_1 + b_2)$
3. Circumference of a circle - Solve for  $r$ :  $C = 2\pi r$
4. Volume of a cone - Solve for  $h$ :  $V = (1/3) \pi r^2 h$
5. Surface area of a prism - Solve for  $L$ :  $S = 2wL + 2Lh + 2 wh$

### II. Graph each equation on a separate coordinate plane.

6.  $y = 3x + 2$
7.  $3x + 2y = 8$
8.  $3y = 6 - 2x$
9.  $4x - 6y = 3$

### III. Solving Quadratic Equations by Factoring

10.  $4x^2 - 9 = 0$
11.  $y^2 - 24y + 144 = 0$
12.  $x^3 - 24x = 5x^2$
13.  $y^2 + 13y + 36 = 0$
14.  $3x^2 + 16x = 35$
15.  $2y^3 - 15y = y^2$
16.  $2x^3 + 5x^2 = 42x$
17.  $5y^3 + 34y^2 = 7y$
18.  $x^2 - 49 = 0$
19.  $2y^2 + 13y = 24$

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## IV. Solve each equation.

- 20.  $13 \pm 8 - 6r$
- 21.  $-1.6r + 5 = -7.8$
- 22.  $5(6-4v) = v + 21$
- 23.  $6x - 5 = 7 - 9x$
- 24.  $-4(6y - 5) = 23 - 3(8y + 1)$

## V. Solving Quadratic Equations by Quadratic Formula

- 25.  $-2x^2 + 8x + 3 = 1$
- 26.  $2y^2 - 8y = -5$
- 27.  $3x^2 - 5x = -1$
- 28.  $3x^2 + 2 = -8y$
- 29.  $3x^2 + 11x = 4$

## VI. Solving Systems of Equations by Substitution

- 30.  $y = x - 3$   
 $4x + y = 32$
- 31.  $2x = 5y$   
 $x + y = 1$

## VII. Solving Systems of Equations by Elimination.

- 32.  $-x + 8y = 16$   
 $3x + 4y = 36$
- 33.  $4x + 5y = 7$   
 $6x - 2y = -18$
- 34.  $5x + 4y = 4$   
 $4x + 5y = 31/8$
- 35.  $-7x + 8y = 32$   
 $5x + 6y = 24$