

PAINT BRANCH HIGH SCHOOL

MATH DEPARTMENT

Geometry Pre-Requisite Packet

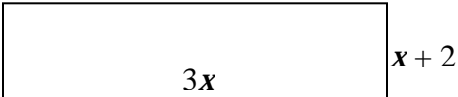
Instructions:

- SHOW ALL WORK that leads you to each solution in the space provided.
- You are permitted to use a calculator and notes from previous mathematics courses to help you, but you should do the work without any help from another person.
- All work needs to be completed and ready to turn in on the FIRST FRIDAY of school.
- This packet will count as part of your first quarter grade and there will be a QUIZ on the material.
- Additional copies of this packet may be printed from the PBHS website.

www.paintbranchhighschool.org

Student Name: _____

ID#: _____ **Date:** _____ **Pd:** _____

| | |
|--|---|
| <p>1. Determine the slope of the line through the points (5, 1) and (2, 7).</p> | <p>2. Determine the slope of the line through the points $(-\frac{1}{2}, -2)$ and $(-\frac{3}{2}, 1)$</p> |
| <p>3. Write the equation of the line passing through the points (3, -4) and (2, 6).</p> | <p>4. Solve for x: $3(x - 2) = 18$</p> |
| <p>5. Solve for x: $7x - 8x + 4 = 5x - 2$.</p> | <p>6. Solve for x: $\frac{x}{6} = \frac{x+3}{9}$</p> |
| <p>7. Solve for x: $x^2 - 6x - 7 = 0$</p> | <p>8. Multiply $(x - 3)(2x + 4)$</p> |
| <p>9. Find the area and perimeter for the figure below.</p>  <p>Area:</p> <p>Perimeter:</p> | <p>10. Find the area and circumference of a circle with radius 6 inches.</p> <p>Area:</p> <p>Circumference:</p> |

11. Simplify $\sqrt{196}$

12. Simplify $(5x^3y^2)^2$

Use the quadratic formula: $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ for Problems 13-14.

13. $x^2 - 9x + 5$

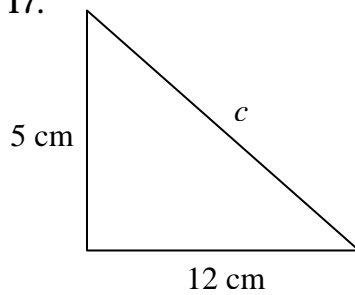
14. $3x^2 + x + 4$

15. Factor $x^2 - 5x - 24$

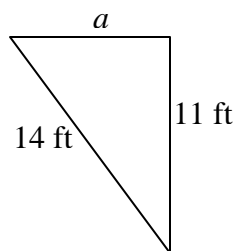
16. Factor $x^2 - 25$

Use the Pythagorean Theorem: $a^2 + b^2 = c^2$ to solve Problems 17-18.

17.



18.



Use the graph below to answer Problems 19-20.

| | |
|--|--|
| <p>19. Give the coordinates of each lettered point.</p> <p>A _____</p> <p>B _____</p> <p>C _____</p> | <p>20. Given the following coordinates, plot the points on the coordinate plane above.</p> <p>D (-2, 3)</p> <p>E (1, 0)</p> <p>F (2, -3)</p> |
|--|--|

