## Roberto Clemente Middle School Rising Honors Geometry/Magnet Geometry Math Calendar

Name: $\qquad$
We are excited to have you join a Geometry class next year! Please use the summer math resources page on the Clemente Website to support your thinking if you get stuck! Bring any questions you have to your new math teacher so you are ready for a year full of learning! -RCMS Math Department https://sites.google.com/a/mcpsmd.net/mcps-math-online-resources/

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| Week of June 22 | Describe the transformations from the parent function for each equation. Parent Function: $y=x^{\wedge} 2$ | 1. $\mathrm{y}=(\mathrm{x}-3)^{2}+8$ | 2. $\mathrm{y}=(\mathrm{x}-7)^{2}+12$ | 3. $\mathrm{y}=(\mathrm{x}+4)^{2}+10$ | 4. $\mathrm{y}=(\mathrm{x}-1)^{2}-15$ |
| Week of June 29 | Multiply the polynomials. | $(2 n+2)(6 n+1)$ | $(8 p-2)(6 p+2)$ | $(x-3)(6 x-2)$ | $(8 p-2)(6 p+2)$ |
| Week of July 6 | Multiply the polynomials. | $(4 a+2)\left(6 a^{2}-a+2\right)$ | $(7 k-3)\left(k^{2}-2 k+7\right)$ | $\left(7 r^{2}-6 r-6\right)(2 r-4)$ | $\left(n^{2}+6 n-4\right)(2 n-4)$ |
| Week of July 13 | Find the measure of the missing side of the right triangle. |  |  | $9$ |  |


| Week of July 20 | Write an equation that could be used to determine the width, w, of the walkway. <br> What is the width in meters? | A rectangular garden measures 13 meters by 17 meters and has a cement walkway around its perimeter, as shown. The width of the walkway remains constant on all four sides. The garden walkway have a combined area of 396 square meters. |  $w$ $w$   <br> $w$  17 m  $w$ <br>  13 m    <br> $w$     <br> $w$     |
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| Week of July 27 | Which statement is true about the equation $7 x+x y=x y+21$ | A. The equation is true for all ordered pairs ( $x, y$ ). $B$. There are no $(x, y)$ pairs for which this equation is true. <br> C. For each value $x$, there is one and only one value of $y$ that makes the equation true. <br> D. For each value of $y$, there is one and only one value of $x$ that makes the equation true. | Jim can paint a house in 12 hours. Alex can paint the same house in 8 hours. Write an equation that can be used to find the time in hours, $t$, it would take Jim and Alex to paint the house together |
| Week of August 3 |  |  | José is able to move triangle A to triangle A' using the flowing sequence of basic transformations: <br> 1. Reflection across the $x$-axis <br> 2. Reflection across the $y$-axis <br> 3. Translation two units to the right <br> Tina claims that the same three transformations, done in any order, will always produce the same result. Explain why Tina's claim is incorrect. |


| Week of August 10 | Factor each polynomial. | $x^{2}+4 x+3$ | $5 x^{2}+25$ | $x^{2}-4 x-12$ | $-8 x^{2}+50$ |
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| Week of August 17 | Solve each quadratic equation. |  | $x^{2}-10 x=-9$ | $6 x^{2}=15 x$ | $2 x^{2}-70=-4 x$ |
| Week of August 24 | Consider this function given in recursive form. $\begin{gathered} f(1)=-3 \\ f(n)=3 f(n-1) ; n \geq 1 \end{gathered}$ <br> Select the equivalent explicit function for $n$ $\geq 1$. |  |  | A. $f(n)=-3(n)$ <br> B. $f(n)=-1(3)^{n}$ <br> C. $f(n)=-3(n-1)$ <br> D. $f(n)=-1(3)^{(n-1)}$ |  |
| Weekends: Look for ways you see math in everyday activities like cooking, shopping, errands, etc! Share something you find with your family every weekend! |  |  |  |  |  |

