Answer Key - Math 1 Weekly Spiral Review Week - 5

Monday	Tuesday	Wednesday	Thursday
Find the sum: $(5a^2 - 3) + (8a^2 - 1)$ **$13a^2 - 4$** $(7k^2 + 2k - 6) + (3k^2 - 11k - 8)$ **$10k^2 - 9k - 14$**	What is 150% of 18? **27** What is 25% of 192? **48**	50 is what percent of 77? **64.9 or 65%** 29 is what percent of 82? **35.4%**	Find the distance between each pair of points: (0, 1) and (-6, -2) **6.71** (8, 3) and (3, 8) **7.07**
If 3 pounds of coffee makes 225 cups, how many pounds of coffee is needed to make 3,000 cups of coffee? **40 lbs**	Find the midpoint between each pair of points: (6, 3) and (10, -7) **(8, -2)** (4, -1) and (6, 1) **(5, 0)**	The diameter of a nickel is 2 cm. What is the circumference? **6.28 cm**	Find the sum or difference: $(-n^2 + 2n) - (2n^3 - n^2 + n + 12)$ **$-2n^3 + n - 12$** $(6c^2 + 3c + 9) - (3c - 5)$ **$6c^2 + 14$**
The point (3, -2) is rotated 90° about the origin and then dilated by a scale factor of 4. What are the coordinates of the resulting image? **(8, 12)**	5 people contributed $9000 each toward the purchase of a sailboat. If they ended up paying $38,500 plus 8% sales tax for the boat, how much money should be refunded to each person? **$684 each**	Harry is purchasing a ticket to Super Bowl LIV in Miami, FL. If the ticket is $7,300 with a 10% processing fee and a 6% sales tax, what is the final purchase price of the ticket? **$8,511.80**	On a map of North Carolina, Raleigh and Asheville are about 8 inches apart. If the scale is 1 inch = 12 miles, how far apart are the cities? **about 96 miles**
Find the coordinates of the vertices after the given transformation. ***Reflection across the x-axis.*** N(-5, 2), G(-3,4), Q(-1,-1) ***G'(-3,-4) Q'(-1,1) N'(-5,-2)***	The pitch of a roof is the number of feet the roof rises for each 12 feet horizontally. If a roof has a pitch of 8, what is its slope expressed as a positive number? **2/3**	When buying a pair of shoes for $109.95, you have the choice of using a coupon for $10 off the price or a 15% discount. Which option is best? Why? **15% discount = $16.49**	Find the coordinates of the vertices after the given transformation. **Rotation 90° clockwise about the origin.** W(-4,-5) H(-5,-3) J(-3,-4) **W'(-5,4) H'(-3,5) J'(-4,3)**
The formula for the area of a trapezoid is $A = \frac{1}{2}h(a + b)$, where h represents the height and a and b represents the lengths of the bases. Solve for h. **$h = \frac{2A}{a + b}$**	Find the coordinates of the vertices after the given transformation. *Reflection across $y = 1$.* C(-5,-1), E(-3,0), M(-1,-3) ***E'(-3,2)M'(-1,5) C'(-5,3)***	Find the coordinates of the vertices after the given transformation. ***Rotation 180° about the origin.*** Z(4, -5) ,W(3, -1), M(5, -1) **Z'(-4,5),W'(-3,1) M'(-5,1)**	Find the slope of the line that passes through the pair of points: (11, 7) and (-6, 2) **5/17** (2, 6) and (4, 12) **3**
Write and solve an equation for the phrase: ***Three times r less than fifteen equals six.*** **$15 - 3r = 6$; $r = 3$**	Find the midpoint between the pair of points: (9, -4) and (-5, -10) **(2, -7)** (4, -1) and (6, 1) **(5, 0)**	Find the endpoint given the midpoint and the other endpoint. M(-3, 1) and E(-1, 4) **(-5,-2)** M(5, -7) and E(2, -11) **(8, -3)**	Describe the type of reflection that describes the transformation. F(1,0)N(1, 3)V(2,4)U(3,4) **to** F'(-1,0)N'(-1,-3)V'(-2,-4) U'(-3,-4) **Rotation 180° about the origin, (x,y) → $(-x,-y)$**
Find the distance between the pair of points: (1, 5) and (7, -3) **10** (1, 8) and (-6, -1) **11.4**	Find the sum or difference: $(4m^2 - m + 2) + (-3m^2 + 10m + 7)$ **$m^2 + 9m + 9$** $(9b^3 - 13b^2 + b) - (-13b^2 - 5b + 14)$ **$9b^3 + 6b - 14$**	Find an equation of the line that passes through (7,2) and is perpendicular to the line whose equation is $y = -4x + 10$. **$y = .25x + .25$**	Find an equation of the line that passes through (5, 4) and is parallel to the line whose equation is $y = 2x + 1$. **$y = 2x - 6$**
Simplify using exponent rules: $(n^2)(n^6)(n^4)$ **n^{12}** $(2m)^6$ **$64m^6$**	The diameter of your bicycle wheel is 25 inches. How far will you move in one turn of your wheel? **78.5 in**	Solve using a proportion: $\frac{n-5}{n+8} = \frac{2}{7}$ **10.2** $\frac{2}{8} = \frac{n+4}{n-4}$ **-6.67**	Solve for the indicated value: $u = x - k$, for x **$x = u + k$** $am = n + p$, for a **$a = \frac{n+p}{m}$**
Simplify using exponent rules: $(3x^3y^6z^2)^0$ **1** $(18xy^3z^8)^0$ **1**	A football team won 75% of 120 games. How many games did they win? Solve using a proportion. **90 games**	Jenny has $300 and she spends $15. What percent of her money has she spent? **5%**	Use the distance formula to find the perimeter. A(-4,-3) B(-3, 2) C(2, 4) D(4, -3) **about 25.76 units**