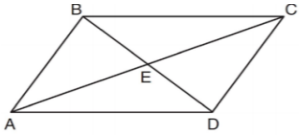
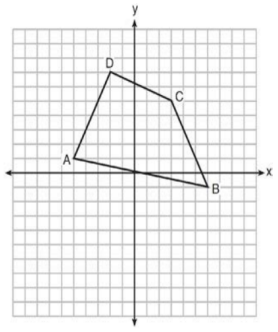
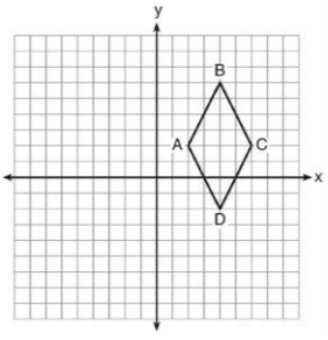
Answer Key - Math 1 Weekly Spiral Review Week - 4

Monday	Tuesday	Wednesday	Thursday
Write an equation of the line that passes through the point (4, 7) and is parallel to the line y = 5x - 3. **y = 5x - 13**	The interior angles of a quadrilateral must total _____. **360°**	Find the distance between the pair of points. (5, 1) and (5, -6) **7** (6, 2) and (0, -6) **10**	Find the midpoint given endpoints: (8, -9) and (0, 5) **(4, -2)** (0, 4) and (-4, -12) **(-2, -4)**
Find the equation of a line that is perpendicular to 4y + 2x = 12 and goes through the point (8, -1). **$y = -\frac{1}{2}x + 3$** **y = 2x - 17**	Simplify using exponent rules: $\frac{2x^4y^{-4}z^{-3}}{3x^2y^{-3}z^4}$ **$\frac{2x^2}{3yz^7}$**	Find the endpoint, given the midpoint and the other endpoint. M(-5, 1) and E(-12, 3) **(2, -1)**	A clock rotates at a constant rate to keep time. If it rotates 45° every 2 hours, how many degrees will it rotate in 24 hours? **540°**
Simplify using exponent rules: $(3x^3 \cdot y^5 \cdot 2z^4)^2$ **$36x^6y^{10}z^8$** $-5x^2(3xy^0z)^4$ **$-405x^6z^4$**	Your Caesar salad recipe uses 4 pounds of romaine lettuce for 15 servings. How much romaine lettuce do you need to serve 20 people? **$5\frac{1}{3}$ pounds**	The coordinates of the vertices of ΔRST are R(-2,-3), S(8, 2) and T(4, 5). What type of triangle is ΔRST? **RIGHT TRIANGLE**	Find the slope of the line that passess through the points (1, 3) and (3, -2). **$-\frac{5}{2}$**
Factor each expression: $20a^3b + 15b^4$ **$5b(4a^3 + 3b^3)$** $4ab + 10a$ **$2a(2b + 5a^7)$**	Find the distance between each pair of points: (-6, -10) and (-2, -10) **4** (5, 9) and (-7, -7) **20**	Write the equation of a line that passes through (6, 3) and has a slope of 2. **y = 2x - 9**	Solve using a proportion: $\frac{b+27}{4} = \frac{b-17}{5}$ **b = -203** $\frac{2}{9} = \frac{v+26}{v-6}$ **v = -35.14**
Translate into an equation and solve: *Two more than four times a number is the number less seven. What is the number?* **4n + 2 = n - 7 ; n = -3**	Solve using percent proportion: 3 is what percent of 4? **75%** 12 is what percent of 20? **60%**	The combined weight of 2 objects is 48 pounds. If the heavier object weighs 6 pounds more than twice the weight of the lighter object, what is the weight of the heavier object? **34 pounds**	Solve using percent proportion: What is 150% of 18? **27** What is 25% of 192? **48**
Three angles of a triangle are in the ratio of 3 : 5 : 7. What is the measure of each angle? **lengths of the sides are 36, 60, 84**	Find the midpoint of the line segment with the given endpoints: (8, -3) and (2 3) **(5, 0)** (9, -4) and (-5, -10) **(2, -7)**	Use the diagram. Parallelogram *ABCD* has vertices *A(1,3), B(5, 7), C(10,7), and D(6,3).* Diagonals $\overline{AC}$ and $\overline{BD}$ intersect at *E.* What are the coordinates of point *E*? ***E(5.5, 5)***  (Not drawn to scale)	
One quart of grape juice costs eighty cents. The price of grape juice is proportional to the number of quarts you buy. How much grape juice can you buy for $10.00? **12.5 quarts**	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)**	In the diagram below, quadrilateral *ABCD* has vertices A(-5, 1), B(6, -1), C(3, 5) and D(-2, 7). **(-1,3)** 	Quadrilateral *ABCD* is graphed below. What quadrilateral best classifies *ABCD?* **rhombus** 
The length of a rectangle is 8 inches longer than the width. If the ratio of the length to perimeter is 5:16, what is the area of the rectangle? **area = 240**	Which quadrilateral has diagonals that always bisect its angles and also bisect each other? **1) rhombus** **2) rectangle** **3) parallelogram** **4) isosceles trapezoid**		

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