PROBLEM SET – Quarterly 2 Review, Mr. Peralta, Class 622 and 623

Topics
- Ratios and Percents
- Tax, Tip, Discount, Interest Rate
- Plotting Points and Reflecting Points
- PEMDAS with Negative Numbers

Important Problems (Plotting Points and Reflecting Points, PEMDAS with Negative Numbers)

Reflecting Points
1. Find the coordinate of the point A’ if A(2, –3.5) is reflected across the y-axis
2. Find the coordinate of point B’ if B(0, 3.5) is reflected across the x-axis
3. Find the coordinate of point D’ if D(5, 0) is reflected across the y-axis.
4. Find the coordinate of point C’’ if C(–5.5, –8.5) is reflected across the y-axis, then reflected across the x-axis.
5. Find the coordinate if E if E’(5, –4.5) is the result of reflecting E across the x-axis

Plotting and Reflecting Points
6. On a graph, plot the points A(0, 3), B(4, 3), C(0, 7), and D(4, 7). Then find the coordinates of A’, B’, C’, and D’ assuming the points are reflected across the x-axis.
7. On a graph, plot the points A(–3, 0), B(–5, 6), and C(–4, 9). Reflect the points across the y-axis and then label them using our tick mark notation.
8. Suppose we reflected the points from the previous question across the x-axis. State the coordinates of A’’, B’’, and C’’

PEMDAS
9. Evaluate the expression $9 - \left[ \frac{1}{2} (-10) - \frac{3}{2} + \frac{17}{2} \right] + \frac{2}{5}$
10. Evaluate the expression \( \left( -\frac{3}{2} \right) \left( 1 \frac{1}{2} \right) - 3 \left( \frac{10}{3} \right) (-7) + \left( \frac{1}{4} \right) \left( \frac{1}{8} \right) \)
11. Evaluate the expression $3ab - 2ac + 5c$ where $a = -2\frac{2}{3}$, $b = \frac{4}{5}$, and $c = -6$
12. Evaluate the expression $6ac + 2a - b$ where $a = 1\frac{1}{3}$, $b = -\frac{3}{4}$, and $c = 7$
Important Problems (Plotting Points and Reflecting Points, PEMDAS with Negative Numbers)

Reflecting Points

13. Find the coordinate of the point A’ if A(2, -3.5) is reflected across the y-axis \( (-2, -3.5) \)

14. Find the coordinate of point B’ if B(0, 3.5) is reflected across the x-axis \( (0, -3.5) \)

15. Find the coordinate of point D’ if D(5, 0) is reflected across the y-axis. \( (-5, 0) \)

16. Find the coordinate of point C’’ if C(-5.5, -8.5) is reflected across the y-axis, then reflected across the x-axis. \( (5.5, 8.5) \)

17. Find the coordinate if E if E’(5, -4.5) is the result of reflecting E across the x-axis \( (5, 4.5) \)

Plotting and Reflecting Points

18. On a graph, plot the points \( A(0, 3) \), \( B(4, 3) \), \( C(0, 7) \), and \( D(4, 7) \). Then find the coordinates of \( A’, B’, C’, \) and \( D’ \) assuming the points are reflected across the x-axis.
19. On a graph, plot the points \(A(-3, 0), B(-5, 6),\) and \(C(-4, 9)\). Reflect the points across the y-axis and then label them using our tick mark notation.

20. Suppose we reflected the points from the previous question across the x-axis. State the coordinates of \(A'', B'',\) and \(C''\). \(A''(3, 0), B''(5, -6), C''(4, -9)\)

PEMDAS

21. Evaluate the expression \(9 - \left[\frac{1}{2}(-10) - \frac{3}{2} + \frac{17}{2}\right] + \frac{2}{5} = 4\)

22. Evaluate the expression \((-\frac{3}{2})(1\frac{1}{2}) - 3\left(\frac{10}{3}\right)(-7) + \left(\frac{1}{4}\right)\left(\frac{1}{8}\right) = \frac{2169}{32}\)

23. Evaluate the expression \(3ab - 2ac + 5c\) where \(a = -2\frac{2}{3}, b = \frac{4}{5},\) and \(c = -6\) = \(-\frac{342}{5}\)

24. Evaluate the expression \(6ac + 2a - b\) where \(a = 1\frac{1}{3}, b = -\frac{3}{4},\) and \(c = 7\) = \(\frac{713}{12}\)