Simplify all answers and show your work!

1. Simplify: \( \frac{x^{-4} y^{5}}{(x^{-2})^3} \)

2. Simplify: \( \frac{2m^{-4}}{9(m^{-3})^2} \)

3. Multiply: \((x + 3)(x^2 + 2x + 4)\)

4. Multiply: \((x + 2)^2\)

5. Divide: \(\frac{x^3 - 6x^2 - 13x + 20}{x - 4}\)

6. Plot the following points: (1, 3), (-2, 4), (5, 2)

7. Find the slope of the line through the points (2, -4) and (5, -1).

8. Graph the line \(3x + 2y = 6\)
9. Divide: \[ \frac{14r^4 - 7r^3 + 28r^2}{-7r^3} \]

10. Solve the determinant: \[ \begin{vmatrix} 2 & 4 \\ 3 & -2 \end{vmatrix} \]

11. Find the equation of the line through the point (3, -2) with a slope \(-\frac{5}{3}\).

12. Find the equation of the line through the point (1, 2) parallel to the line \(2x + 7y = -5\).

13. Solve the system of equations:
   \[
   \begin{align*}
   x - 3y &= 19 \\
   4x - 5y &= 41 
   \end{align*}
   \]

14. Use Cramer’s Rule to solve for \(x\) in the following system of equations:
   \[
   \begin{align*}
   6x + 3y &= -15 \\
   4x + 5y &= -1 
   \end{align*}
   \]

15. Find the slope of the line given by the equation \(4x - 5y = 13\).