

Plot all points and lines on the back

1. Using the two points A and B shown on the graph,
 - a. Find the equation of $\overline{AB}$. Label this line j .
 - b. Derive the equation of line k , which is parallel to $\overline{AB}$ and passes through point $C = (4, 7)$.
 - c. Derive the equation of line l , which is perpendicular to $\overline{AB}$ and goes through $D = (2, 4)$.
2. If line m has a slope of $-2/3$ and passes through point $E = (-3, -1)$
 - a. Using the point and slope, find the equation of m .
 - b. Derive the equation of line n , which is parallel to line m and passes through $F = (-3, -3)$.
 - c. Derive line o , which is perpendicular to line n and passes through $G = (2, -4)$.

