Problem 1. Let $A = (-7, 8)$ and $B = (5, 2)$. Find the slope of the line $\overleftrightarrow{AB}$.

Problem 2. Let $A = (-7, 8)$ and $B = (5, 2)$. Find the point-slope form of the equation of the line $\overleftrightarrow{AB}$.

Problem 3. Let $A = (-7, 8)$ and $B = (5, 2)$. Find the slope-intercept form of the equation of the line $\overleftrightarrow{AB}$.

Problem 4. Find the slope-intercept form of the equation of the line through $(6, 2)$ and $(2, 10)$

Problem 5. Find distance from $(6, 2)$ to $(2, 10)$.

Problem 6. Find the equation of a circle centered at $(6, 2)$ and passing through $(2, 10)$.

Problem 7. Find the point-slope form of the equation of the line parallel to $y = 2x + 3$ through $(8, -5)$.

Problem 8. Find the point-slope form of the equation of the line perpendicular to $y = 2x + 3$ through $(8, -5)$.