Equations of lines, slopes, and intercepts $y = mx + b$

1. Find the equation of the line between the points $(1, 6)$ and $(-1, -2)$. _____

    What is the slope of the line perpendicular to this line? _____

2. Find the equation of the line between the points $(-1, 8)$ and $(3, -4)$. _____

    What is the slope of the line perpendicular to this line? _____

3. Find the equation of the line between the points $(2, -2)$ and $(-4, -5)$. _____

    What is the slope of the line perpendicular to this line? _____

Answers:

1. $y = 4x + 2$, slope of perpendicular is $-1/4$
2. $y = -3x + 5$, slope of perpendicular is $1/3$
3. $y = \frac{1}{2}x - 3$, slope of perpendicular is -2