To find the slope, solve for *y*: $2y = 6 + 5x$, so $y = 3 + \frac{5}{2}x$

The slope is $\frac{5}{2}$. The slope of a perpendicular line is $-\frac{2}{5}$. A perpendicular line has the form $y = -\frac{2}{5}x + b$. To find *b*, substitute $(-10, 8)$ for *x* and *y*:

$8 = -\frac{2}{5}(-10) + b$, or $8 = 4 + b$, so $4 = b$

This gives you the equation of the line: $y = -\frac{2}{5}x + 4$