Exercise

Bresenham's line drawing algorithm

1) Calculate pixel positions that made up the line connecting endpoints: (12, 10) and (17, 14).

1. $(x_1, y_1) = ?$
2. $\Delta x = ?,\ \Delta y = ?,\ 2\Delta y = ?,\ 2\Delta y - 2\Delta x = ?$
3. $p_1 = 2\Delta y - \Delta x = ?$

t	P_t	(x_{t+1}, y_{t+1})

For example,

1. $(x_1, y_1) = (12, 10)$
2. $\Delta x = 5,\ \Delta y = 4,\ 2\Delta y = 8,\ 2\Delta y - 2\Delta x = -2$
3. $p_1 = 2\Delta y - \Delta x = 3$