

Find an equation

line $\frac{y-1}{x-2} = \frac{y_1-1}{x_1-2}$

1. Find the equation of the line passing through the points

$(1, 2)$ and $(3, 4)$

$\frac{y-2}{x-1} = \frac{4-2}{3-1} = \frac{2}{2} = 1$
 $y-2 = x-1$
 $y = x+1$

2. Find the equation of the line passing through the points

$(2, 3)$ and $(4, 5)$

$\frac{y-3}{x-2} = \frac{5-3}{4-2} = \frac{2}{2} = 1$

$(3, 4)$ and $(5, 6)$

$\frac{y-4}{x-3} = \frac{6-4}{5-3} = \frac{2}{2} = 1$

$(4, 5)$ and $(6, 7)$

$\frac{y-5}{x-4} = \frac{7-5}{6-4} = \frac{2}{2} = 1$

3. Find the equation of the line passing through the points $(1, 2)$ and $(3, 4)$

$\frac{y-2}{x-1} = \frac{4-2}{3-1} = 1$
 $y-2 = x-1$
 $y = x+1$

4. Find the equation of the line passing through the points

$(2, 3)$ and $(4, 5)$

$(3, 4)$ and $(5, 6)$

$(4, 5)$ and $(6, 7)$

5. Find the equation of the line passing through the points

$(1, 2)$ and $(3, 4)$

$(2, 3)$ and $(4, 5)$

6. Find the equation of the line passing through the points

$(1, 2)$ and $(3, 4)$

$\frac{y-2}{x-1} = \frac{4-2}{3-1} = 1$
 $y-2 = x-1$
 $y = x+1$

$(2, 3)$ and $(4, 5)$

$\frac{y-3}{x-2} = \frac{5-3}{4-2} = 1$
 $y-3 = x-2$
 $y = x+1$

$(3, 4)$ and $(5, 6)$

$\frac{y-4}{x-3} = \frac{6-4}{5-3} = 1$
 $y-4 = x-3$
 $y = x+1$

$(4, 5)$ and $(6, 7)$

$\frac{y-5}{x-4} = \frac{7-5}{6-4} = 1$
 $y-5 = x-4$
 $y = x+1$

$(5, 6)$ and $(7, 8)$

$\frac{y-6}{x-5} = \frac{8-6}{7-5} = 1$
 $y-6 = x-5$
 $y = x+1$

$(6, 7)$ and $(8, 9)$

$\frac{y-7}{x-6} = \frac{9-7}{8-6} = 1$
 $y-7 = x-6$
 $y = x+1$

$(7, 8)$ and $(9, 10)$

$\frac{y-8}{x-7} = \frac{10-8}{9-7} = 1$
 $y-8 = x-7$
 $y = x+1$

$(8, 9)$ and $(10, 11)$

$\frac{y-9}{x-8} = \frac{11-9}{10-8} = 1$
 $y-9 = x-8$
 $y = x+1$

$(9, 10)$ and $(11, 12)$

$\frac{y-10}{x-9} = \frac{12-10}{11-9} = 1$
 $y-10 = x-9$
 $y = x+1$

$(10, 11)$ and $(12, 13)$

$\frac{y-11}{x-10} = \frac{13-11}{12-10} = 1$
 $y-11 = x-10$
 $y = x+1$

$(11, 12)$ and $(13, 14)$

$\frac{y-12}{x-11} = \frac{14-12}{13-11} = 1$
 $y-12 = x-11$
 $y = x+1$

$(12, 13)$ and $(14, 15)$

$\frac{y-13}{x-12} = \frac{15-13}{14-12} = 1$
 $y-13 = x-12$
 $y = x+1$

$(13, 14)$ and $(15, 16)$

$\frac{y-14}{x-13} = \frac{16-14}{15-13} = 1$
 $y-14 = x-13$
 $y = x+1$

$(14, 15)$ and $(16, 17)$

$\frac{y-15}{x-14} = \frac{17-15}{16-14} = 1$
 $y-15 = x-14$
 $y = x+1$

$(15, 16)$ and $(17, 18)$

$\frac{y-16}{x-15} = \frac{18-16}{17-15} = 1$
 $y-16 = x-15$
 $y = x+1$

$(16, 17)$ and $(18, 19)$

$\frac{y-17}{x-16} = \frac{19-17}{18-16} = 1$
 $y-17 = x-16$
 $y = x+1$