

## Rearranging Equations of Lines

Rearrange these equations into the form  $y = mx + c$

(a)  $y = 5 + 3x$       (b)  $2x + y = 15$   
(c)  $y - 4x = 9$       (d)  $x + y - 5 = 0$   
(e)  $2x - y = 3$       (f)  $4x - 8 - y = 0$

(a)  $y = 3x + 5$     (b)  $y = -2x + 15$   
(c)  $y = 4x + 9$     (d)  $y = -x + 5$   
(e)  $y = 2x - 3$     (f)  $y = 4x - 8$

Rearrange these equations into the form  $y = mx + c$

(a)  $2y = 6x + 10$     (b)  $3y = 12 - 9x$   
(c)  $4x + 2y = 12$     (d)  $2x + 3y - 7 = 0$   
(e)  $9x - 3y = 21$     (f)  $2x - 5y - 8 = 0$

(a)  $y = 3x + 5$     (b)  $y = -3x + 4$   
(c)  $y = -2x + 6$     (d)  $y = -\frac{2}{3}x + \frac{7}{3}$   
(e)  $y = 3x - 7$     (f)  $y = \frac{2}{5}x - \frac{8}{5}$

For each of these equations, rearrange into the form  $y = mx + c$  and find the gradient and y-intercept.

(a)  $y = 6 + 2x$       (b)  $y = 1 - 3x$   
(c)  $x + y = 5$       (d)  $3x + y = 7$   
(e)  $4x = y - 2$       (f)  $2x - y = 3$   
(g)  $5x - y - 1 = 0$   
(h)  $0 = 12 - y - 3x$

(a)  $y = 2x + 6$        $m = 2$  (0,6)  
(b)  $y = -3x + 1$      $m = -3$  (0,1)  
(c)  $y = -x + 5$        $m = -1$  (0,5)  
(d)  $y = -3x + 7$      $m = -3$  (0,7)  
(e)  $y = 4x + 2$        $m = 4$  (0,2)  
(f)  $y = 2x - 3$        $m = 2$  (0,-3)  
(g)  $y = 5x - 1$        $m = 5$  (0,-1)  
(h)  $y = -3x + 12$      $m = -3$  (0,12)

For each of these equations, rearrange into the form  $y = mx + c$  and find the gradient and y-intercept.

(a)  $2y = 4x + 6$       (b)  $3y = 12 - 6x$   
(c)  $8x + 2y = 20$     (d)  $12x + 4y = 16$   
(e)  $2y = 3x + 7$       (f)  $3x + 4y = 9$   
(g)  $3x - 6y - 12 = 0$   
(h)  $5 = 8x - 6y$   
(i)  $3x - 5y = 11$   
(j)  $5x + 4y + 8 = 0$

(a)  $y = 2x + 3$        $m = 2$  (0,3)  
(b)  $y = -2x + 4$        $m = -2$  (0,4)  
(c)  $y = -4x + 5$        $m = -4$  (0,5)  
(d)  $y = -3x + 4$        $m = -3$  (0,4)  
(e)  $y = \frac{3}{2}x + \frac{7}{2}$        $m = \frac{3}{2}$  (0,  $\frac{7}{2}$ )  
(f)  $y = -\frac{3}{4}x + \frac{9}{4}$        $m = -\frac{3}{4}$  (0,  $\frac{9}{4}$ )  
(g)  $y = \frac{1}{2}x - 2$        $m = \frac{1}{2}$  (0,-2)  
(h)  $y = \frac{4}{3}x - \frac{5}{3}$        $m = \frac{4}{3}$  (0,  $-\frac{5}{3}$ )  
(i)  $y = \frac{3}{5}x - \frac{11}{5}$        $m = \frac{3}{5}$  (0,  $-\frac{11}{5}$ )  
(j)  $y = -\frac{5}{4}x - 2$        $m = -\frac{5}{4}$  (0,-2)