MEMO: EXERCISE 3

1 a) $y = 4x - 5$

gradient (m) = 4 ; y-intercept = −5

b) $y = -x + 2$

gradient (m) = −1 ; y-intercept = 2

c) $y = -2x + 0$

gradient (m) = −2 ; y-intercept = 0

d) $y = 10$ / $y = 0x + 10$

gradient (m) = 0 ; y-intercept = 10

2. $T(3; 6)$ and $R(-1; -6)$

$$m = \frac{-6-6}{-1-3} = \frac{-12}{-4} = 3$$

$y = mx + c$

$y = 3x + c$

Substitute: $T(3; 6)$ to find c

$6 = 3(3) + c$

$6 - 9 = c$

$3 = c$

$\therefore y = 3x - 3$

or $y = mx + c$

$y = 3x + c$

Substitute: $R(-1; -6)$

$-6 = 3(-1) + c$

$-6 + 3 = c$

$-3 = c$

$\therefore y = 3x - 3$

MEMO : EXERCISE 4

1. $y = mx + c$

Substitute $m = -1$

$y = -x + c$

Substitute Point: $(\overset{x}{4}; \overset{y}{-2})$ to find c

$-2 = -1(4) + c$

$4 - 2 = c$

$2 = c$

$\therefore y = -x + 2$

2. In $y = \boxed{-2}x - 4$ $(m = -2)$

Substitute $m = -2$

$y = -2x + c$

Substitute Point $(\overset{x}{5}; \overset{y}{1})$ to find c

$1 = -2(5) + c$

$1 + 10 = c$

$11 = c$

$\therefore y = -2x + 11$