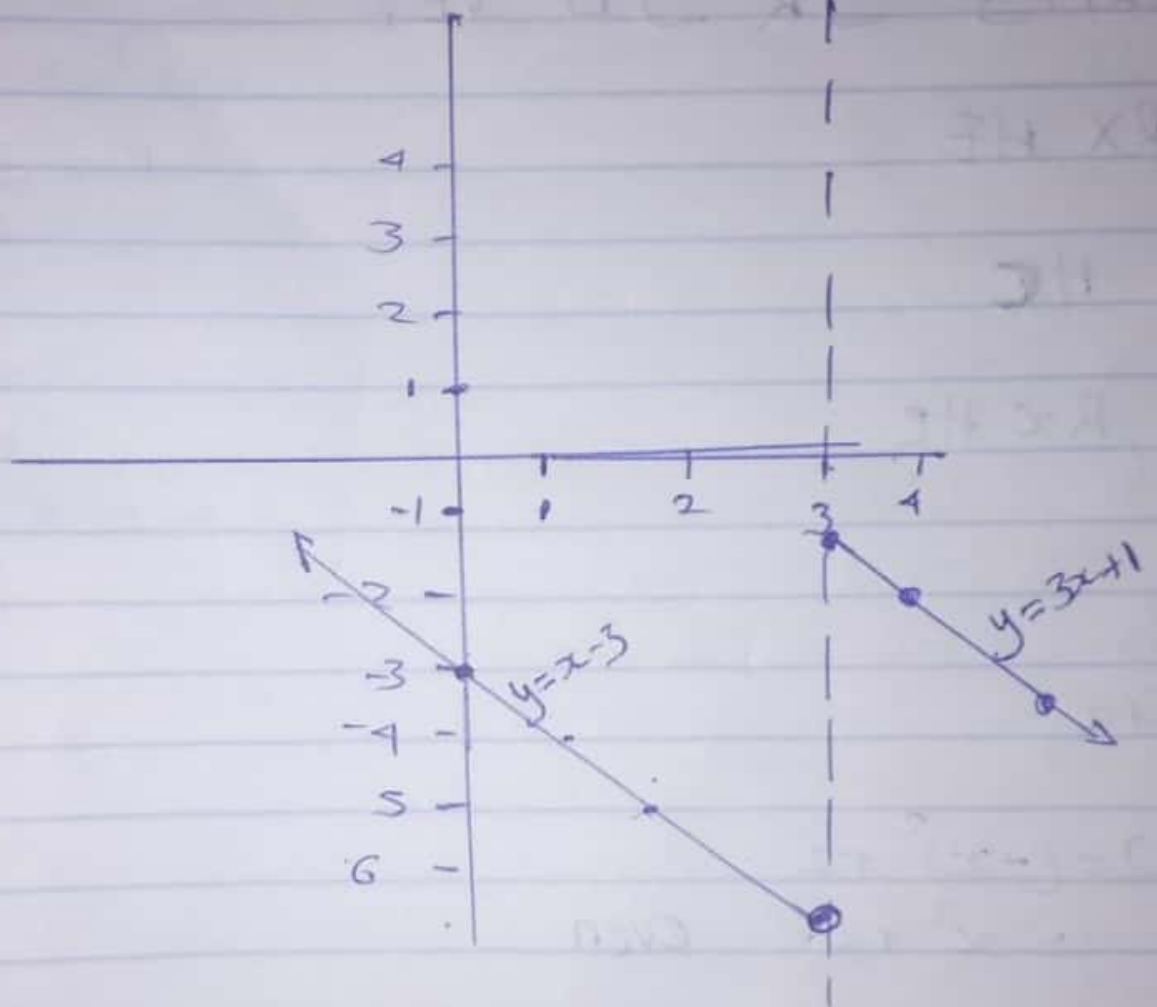


3)



$$2) g(1,2) (6,5)$$

$$h(1,1) (5,6)$$

$$\text{gradient of } g = \frac{5-2}{6-1} = \frac{3}{5}$$

$$\text{gradient of } h = \frac{6-1}{5-1} = \frac{5}{4}$$

equations

$$g(x)$$

$$(6,5)(x,y)$$

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

$$5y - 25 = 3x - 18$$

$$5y = 3x + 7$$

$$y = \frac{3x+7}{5}$$

$$h(x) = \frac{y-1}{x-1} = \frac{5}{4}$$

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

$$g(h(x)) = \frac{3\left(\frac{5}{4}x - \frac{1}{4}\right) + 7}{5}$$

$$= \frac{75}{4}x - \frac{125}{4}$$

6)

$$b) f(2x) - (g(x))^2$$

$$f(2x) = 2(2x)^2 + 2x$$

$$= 8x^2 + 2x$$

$$(g(x))^2 = (5x-7)^2$$

$$= 25x^2 + 70x - 49$$

$$f(2x) - (g(x))^2 = 8x^2 + 2x - (25x^2 + 70x - 49)$$

$$= -17x^2 - 68x + 49$$

4)

c) SI SU HC

d) SI SD Rx HC

$$5) f(x) = \frac{7-x}{4}$$

9)

$$y = \frac{7-x}{4}$$

$$x = \frac{7-y}{4}$$

$$4x = 7-y$$

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

$$y = 7-4x$$

$$b) f(x) = \frac{2x+1}{x-3}$$

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

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

$$x(y-3) = 2y+1$$

$$xy - 3x = 2y+1$$

$$xy - 2y = 3x+1$$

$$y(x-2) = 3x+1$$

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