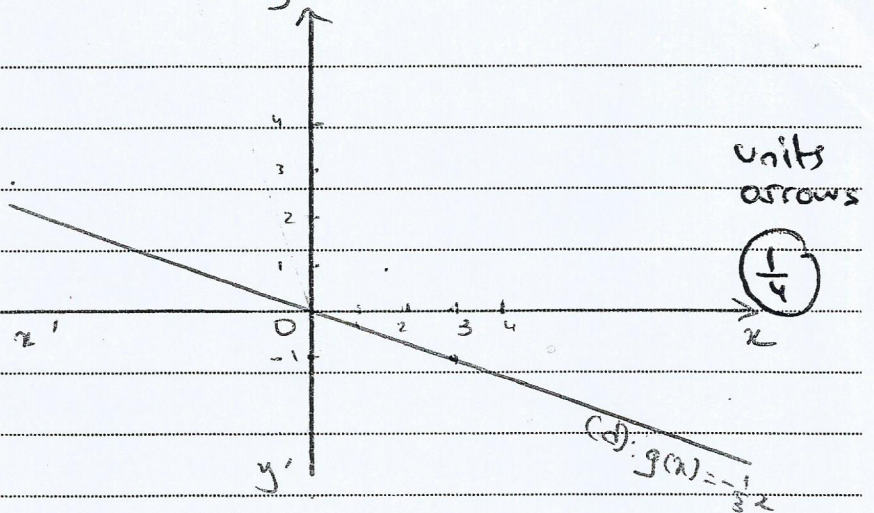


c) $g(x) = -\frac{1}{3}x$
 for $x = 3$; $g(3) = -1$.

$\left(\frac{1}{2}\right)$



rule

$\left(\frac{1}{4}\right)$

d) * when the director coefficient of a straight line (d) that represents a decreasing function increases

$\left(\frac{1}{4}\right)$

decreases then the straight line gets closer to x' or

thus if f is a decreasing fn. represented by a straight line (d')

whose director coefficient is "a" then a should be less than $-\frac{1}{3}$

so that (d') is closer than (d) to (y' axis) so $a < -\frac{1}{3}$

Ans

$\left(\frac{1}{2}\right)$

3) * g passes through a point of abscissa 9

so $g(9) = -\frac{1}{3}(9) = -3$

$\left(\frac{1}{4}\right)$

g passes through $(9; -3)$

thus ****** $DE = 9 + 2(-3) - 2 = 9 - 6 - 2 = 1 \text{ cm}$

$\left(\frac{1}{4}\right)$

******* $BC = 2(9) + 3(-3) - 6 = 18 - 9 - 6 = 3 \text{ cm}$

$\left(\frac{1}{4}\right)$

and from the ratio of part 2:

$\left(\frac{1}{2}\right)$

$\frac{AD}{AB} = \frac{AE}{AC}$

thus $AB = \frac{AD \times AC}{AE} = \frac{2 \times 9}{3} = 6 \text{ cm}$

thus $BD = BA - AD = 6 - 2 = 4 \text{ cm}$ (coll. points)

$BD = 4 \text{ cm}$

* Perimeter ADE = 6 cm

$AD + DE + AE = 6 \text{ cm}$

$AD = 6 - (DE + AE)$

$= 6 - (1 + 3)$

$= 2 \text{ cm}$

unit $\left(\frac{1}{4}\right)$

$\left(\frac{1}{4}\right)$

Perimeter of DBEC = $DE + EC + (CB + BD)$

$= 1 + 6 + 3 + 4$

$\left(\frac{1}{4}\right)$

$= 14 \text{ cm}$

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