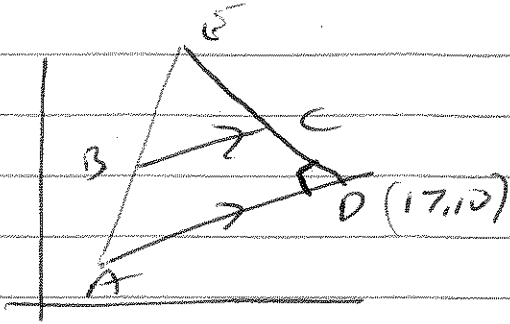


JUNE 02 P1 Q120

2)



$$\text{Find } C \quad m_{AD} = \frac{10-2}{17-1} = \frac{1}{2}$$

$$\therefore m_{DC} = -2$$

$$\therefore -2 = \frac{y-10}{x-17}$$

$$-2x + 34 = y - 10$$

CD \Rightarrow

$$-2x + 44 = y \quad (1)$$

AD \Rightarrow

$$BC \Rightarrow \begin{matrix} \parallel \therefore m = \frac{1}{2} \\ \parallel \therefore m = \frac{1}{2} \end{matrix}$$

$$\frac{1}{2} = \frac{y-11}{x-4}$$

$$\frac{1}{2}x - 2 = y - 11$$

$$+\frac{1}{2}x + 9 = y \quad (2)$$

Sim Eq

$$-2x - y = 44 \quad (1)$$

$$+\frac{1}{2}x - y = -9 \quad (2)$$

$$-2.5x = -35$$

$$\therefore x = 14$$

C \Rightarrow

$$\therefore \underline{\underline{(14, 16)}}$$

June 02 P1 Q12 O

Find \vec{E}

eq AB

$$m = \frac{11-2}{4-1} = \frac{9}{3} = 3$$

\therefore

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

$$3x-3 = y-2$$

$$3x-1 = y$$

eq DC

$$44 = y + 2x$$

Find \vec{E}

$$44 = y + 2x$$

$$-1 = y - 3x$$

$$\underline{45 = 5x}$$

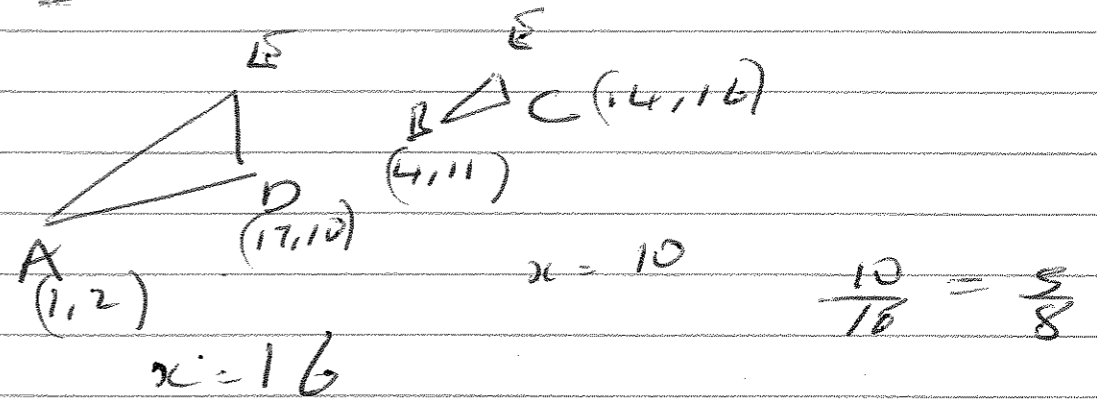
$$x = 9$$

$\vec{E} \Rightarrow$

$\therefore \underline{\underline{(9, 26)}}$

Ques 02 P1 or 0

11) Ratio



$$\text{Area} = k^2 = 25 : 64$$

$$\text{to Quad} \quad 25 : (64 - 25)$$

$$25 : 39$$

or Do Area

NOV 02 P1 Q9

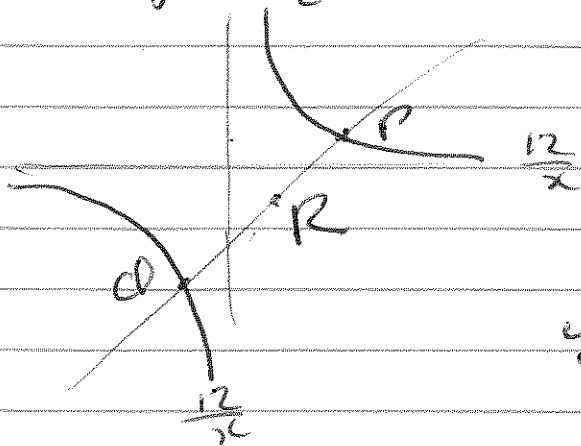
9)

$$2y = 3x - 6$$

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

$$xy = 12$$

$$y = \frac{12}{x}$$



$$y = \frac{3}{2}x - 3 = \frac{12}{x}$$

$$3x - 6 = \frac{24}{x}$$

$$3x^2 - 6x - 24 = 0$$

$$3(x^2 - 2x - 8) = 0$$

$$3(x+2)(x-4) = 0$$

$$\therefore x = -2$$

$$x = 4$$

$$\therefore P(4, 3)$$

$$Q(-2, -6)$$

↳ Bisector

$$\text{Mid pt } \underline{R} \left(\frac{4-2}{2}, \frac{3-6}{2} \right)$$
$$\left(1, -\frac{3}{2} \right)$$

$$m = \frac{-6-3}{-2-4} = \frac{3}{2} \quad \therefore \text{slope} = -\frac{2}{3}$$

$$\text{So } \frac{-2}{3} = \frac{y - (-\frac{3}{2})}{x - 1}$$

$$-2x + 2 = 3y + \frac{9}{2} = 6y + 4x + 5 = 0$$

503 P1 Q5

5)

Find dist

$$y = 3 + \frac{4}{x}$$

$$y = 4x + 9$$

$$3 + \frac{4}{x} = 4x + 9$$

$$3x + 4 = 4x^2 + 9x$$
$$= 4x^2 + 6x - 4 = 0$$

$$\sqrt{b^2 - 4ac} \rightarrow 36 - (4)(4)(-4) = \sqrt{100} \therefore \text{factorise}$$

$$4x^2 + 6x - 4 = 0$$

	x	$+/-$
	-16	$+6x$
	$1+16$	
	$2x$	$8x-2x$
	$4x$	

OR
-5 + 16 = 11
2x

$$4x^2 + 8x - 2x - 4 = 0$$

$$4x(x+2) - 2(x+2)$$

$$(x+2)(4x-2) = 0 \quad \therefore x = -2$$

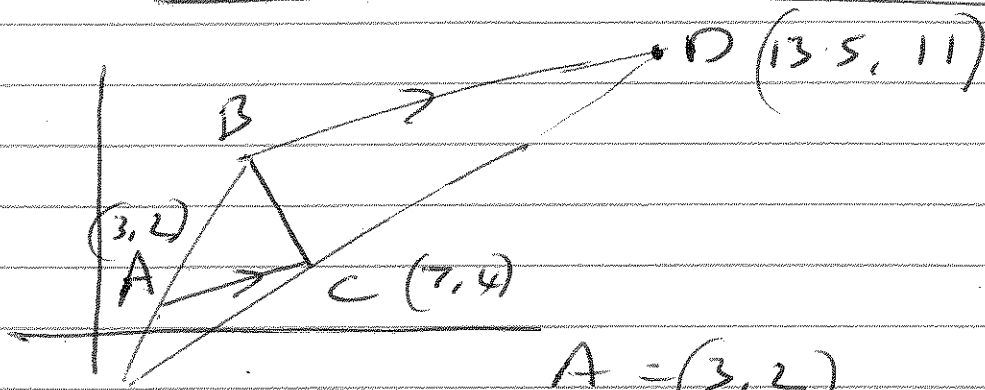
$$x = 0.5$$

$$\therefore \begin{matrix} x_1 & y_1 \\ (0.5, 11) \end{matrix} \quad \begin{matrix} x_2 & y_2 \\ (-2, 1) \end{matrix}$$

$$\text{dist} = \sqrt{(1-11)^2 + (-2-0.5)^2}$$
$$= \sqrt{10^2 + (-2.5)^2} = \underline{\underline{10.3}}$$

June 03 P2 91E

11)



$$A = (3, 2)$$
$$C = (7, 4)$$

Find B

$$M_{AC} = \frac{4-2}{7-3} = \frac{2}{4} = \frac{1}{2}$$

$$M_{CB} = -2 \quad \therefore \quad -2 = \frac{y-4}{x-7}$$

$$-2x + 14 = y - 4$$

$$-2x + 18 = y$$

eq BC

$$\text{eq BD} \quad \frac{1}{2} = \frac{y-11}{x-13.5}$$

$$\frac{1}{2}x - \frac{13.5}{2} = y - 11$$

$$\frac{1}{2}x - \frac{13.5}{2} + 11 = y$$

$$\frac{1}{2}x + 4.25 = -2x + 18$$

$$x + 8.5 = -4x + 36$$

$$5x = 27.5$$

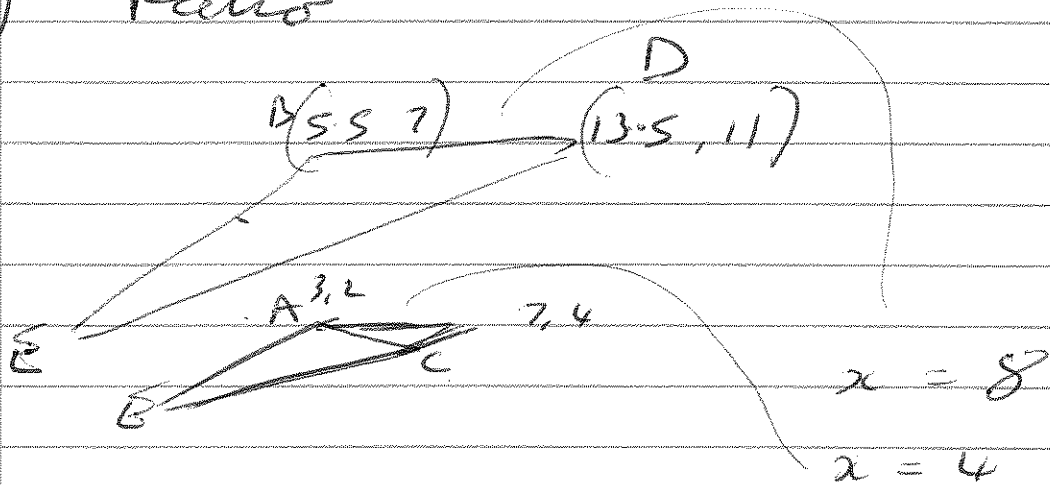
$$x = 5.5$$

B =

$$\therefore \underline{\underline{(5.5, 7)}}$$

JUNE 03 P2 Q11 E

11) Ratio



$$\therefore \frac{8}{4} = \frac{2}{1}$$

$$\text{Area} = x^2 \quad \therefore \frac{4}{1} \quad \text{little } \Delta = \frac{1}{4}$$

$$\text{For } \Delta \quad \text{BUT} \quad \frac{\text{Area}}{\Delta} = \frac{3}{4}$$

$$\text{OR DO area } \frac{1}{2} B \times H$$

11)

NO 3 P1 Q11

OA $y = 3x$

OC $y = \frac{1}{2}x$

CB $y = 3x - 15$

Find C OC = CB at C

$\therefore \frac{1}{2}x = 3x - 15$

$x = 6x - 30$

$\therefore x = 6$

\therefore (6, 3)

Find B

Mid pt AC

$\left(\frac{6+2}{2}, \frac{6+3}{2} \right)$

$(4, 4.5)$

Mid pt OB

$\left(\frac{0+x}{2}, \frac{0+y}{2} \right) = (4, 4.5)$

$\frac{x}{2} = 4$

$\therefore x = 8$

$\frac{y}{2} = 4.5$

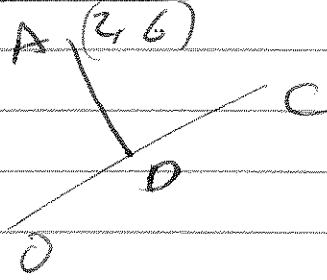
$\therefore y = 9$

(8, 9)

11)

NO3 P1 Q11

Find D



$M_{OC} = y = \frac{1}{2}x \quad \therefore m = \frac{1}{2}$

$M_{AD} = -2 \quad M_{AD} = -2$

eqn AD $-2 = \frac{y-6}{x-2} \quad -2x+4 = y-6$
 $\underline{-2x+10 = y}$

intersect $y = -2x+10 = \frac{1}{2}x$

$-4x+20 = x$

$20 = 5x$

$4 = x$

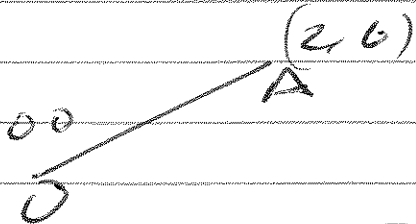
D is (4, 2)

11) Find perimeter



$= \sqrt{6^2 + 3^2}$

$= \sqrt{45}$



$= \sqrt{6^2 + 2^2} = \sqrt{40}$

$\therefore P = 2(\sqrt{45} + \sqrt{40})$

1dp

≈ 26.1