26		eg $\overrightarrow{OP}$ = $n(2\mathbf{a} + 3\mathbf{b})$ **or** $\overrightarrow{OP} = 2\mathbf{a} + m(5\mathbf{b} - 2\mathbf{a})$ **or** $\overrightarrow{OP} = 5\mathbf{b} + x(2\mathbf{a} - 5\mathbf{b})$		5	M1	for a vector equation for $\overrightarrow{OP}$
		eg $\overrightarrow{OP} = n(2\mathbf{a} + 3\mathbf{b})$ **and** $\overrightarrow{OP} = 2\mathbf{a} + m(5\mathbf{b} - 2\mathbf{a})$ **or** eg $\overrightarrow{OP} = n(2\mathbf{a} + 3\mathbf{b})$ **and** $\overrightarrow{OP} = 5\mathbf{b} + x(2\mathbf{a} - 5\mathbf{b})$ oe			M1	2 vector equations for $\overrightarrow{OP}$ that can be used to find $\overrightarrow{OP}$ - must be in terms of **a** and **b** and a scalar
		eg $5m = 3n$ or $m = \frac{3}{5}n$ or $2n = 2 - 2m$ or $n = 1 - m$ oe **and** $2 - 2 \times \frac{3}{5}n = 2n$ or $2 \times \frac{5}{3}m = 2 - 2m$ oe **or** eg $2n = 2x$ or $n = x$ or $3n = 5 - 5x$ oe **and** $3x = 5 - 5x$ or $3n = 5 - 5n$ oe			M1	Writing one equation in terms of only one scalar eg one of n or m or x etc
		eg $m = \frac{3}{8}$ or $n = \frac{5}{8}$ or $x = \frac{5}{8}$ oe			M1	for a correct value for one scalar
		Working is required	$\frac{5}{4}\mathbf{a} + \frac{15}{8}\mathbf{b}$		A1	oe (dep on M1) but terms in **a** and terms in **b** should be simplified. eg $\frac{1}{8}(10\mathbf{a} + 15\mathbf{b})$ or $\frac{5}{8}(2\mathbf{a} + 3\mathbf{b})$ etc
						Total 5 marks
		Alternative method as a vector method not requested				
		eg $\overrightarrow{OP} = n(2\mathbf{a} + 3\mathbf{b})$		5	M1	for a vector equation for $\overrightarrow{OP}$

		eg $CP : OP = 3 : 5$ or $CP : CO = 3 : 8$ or $\frac{CP}{OP} = \frac{3}{5}$ or $\frac{CP}{CO} = \frac{3}{8}$ oe			M2	for a correct ratio for two sides in triangle *ACP* and triangle *BOP* that help to find $\overrightarrow{OP}$ as a fraction of $\overrightarrow{OC}$ (could be seen on the diagram)
		$\overrightarrow{OP} = \frac{5}{8}\overrightarrow{OC}$ or $n = \frac{5}{8}$			M1	
		Working is required	$\frac{5}{4}\mathbf{a} + \frac{15}{8}\mathbf{b}$		A1	oe (dep on M1) but terms in **a** and terms in **b** should be simplified. eg $\frac{1}{8}(10\mathbf{a} + 15\mathbf{b})$ or $\frac{5}{8}(2\mathbf{a} + 3\mathbf{b})$ etc
						Total 5 marks

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