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15 $\mathcal{E} = \{\text{positive multiples of } 3 \text{ less than } 50\}$

$$A = \{x : x \geq 3\}$$

$$B = \{x : 0 < x < 18\}$$

(a) List the members of the set $A \cap B$

(1)

$$C = \{\text{positive even multiples of three}\}$$

(b) Find $n([A \cap B] \cap C')$

(3)

(Total for Question 15 is 4 marks)**16**

$$\mathbf{A} = \begin{pmatrix} 1 & -3 \\ -4 & 2 \end{pmatrix} \quad \mathbf{B} = \begin{pmatrix} 3 & 4 \\ -2 & -5 \end{pmatrix}$$

(a) Find $3\mathbf{A} - 4\mathbf{B}$

$$\begin{pmatrix} & \\ & \end{pmatrix}$$

(2)

$$\mathbf{C} = \begin{pmatrix} 1 & 4 & 6 \\ 2 & 1 & -2 \end{pmatrix}$$

(b) Find \mathbf{AC}

$$\begin{pmatrix} & \\ & \end{pmatrix}$$

(2)

(Total for Question 16 is 4 marks)

P 5 3 3 0 5 A 0 9 2 0