UNIT VECTORS

1. Write each of the following vectors in the form $\begin{pmatrix} x \\ y \end{pmatrix}$.

(a) $5\underline{i} + 2\underline{j} = \begin{pmatrix} \quad \\ \quad \end{pmatrix}$

(b) $6\underline{i} - 5\underline{j} = \begin{pmatrix} \quad \\ \quad \end{pmatrix}$

(c) $-2\underline{i} + 7\underline{j} = \begin{pmatrix} \quad \\ \quad \end{pmatrix}$

(d) $-6\underline{i} + \underline{j} = \begin{pmatrix} \quad \\ \quad \end{pmatrix}$

(e) $-3\underline{i} - \underline{j} = \begin{pmatrix} \quad \\ \quad \end{pmatrix}$

2. Write each of the following vectors in the form $x\underline{i} + y\underline{j}$.

(a) $\begin{pmatrix} 8 \\ 3 \end{pmatrix} = \quad \underline{i} \quad \underline{j}$

(b) $\begin{pmatrix} 7 \\ -4 \end{pmatrix} = \quad \underline{i} \quad \underline{j}$

(c) $\begin{pmatrix} -5 \\ -9 \end{pmatrix} = \quad \underline{i} \quad \underline{j}$

(d) $\begin{pmatrix} -10 \\ 7 \end{pmatrix} = \quad \underline{i} \quad \underline{j}$

3. Complete the following table.

	A	B	$\overrightarrow{AB}$	$\lvert\overrightarrow{AB}\rvert$
(a)	(4, 5)	(5, 5)	$\begin{pmatrix} \quad \\ \quad \end{pmatrix}$	
(b)	(7, -3)	(8, -3)	$\begin{pmatrix} \quad \\ \quad \end{pmatrix}$	
(c)	(-4, 7)	(-3, 7)	$\begin{pmatrix} \quad \\ \quad \end{pmatrix}$	
(d)	(-6, -5)	(-7, -5)	$\begin{pmatrix} \quad \\ \quad \end{pmatrix}$	

LIVEWORKSHEETS