7 The vector $\mathbf{p}$ has magnitude 39 and is in the direction $-5\mathbf{i}+12\mathbf{j}$. The vector $\mathbf{q}$ has magnitude 34 and is in the direction $15\mathbf{i}-8\mathbf{j}$.

(a) Write both $\mathbf{p}$ and $\mathbf{q}$ in terms of $\mathbf{i}$ and $\mathbf{j}$. [4]

(b) Find the magnitude of $\mathbf{p}+\mathbf{q}$ and the angle this vector makes with the positive x-axis. [4]