Triangles ABC and ADE are both right angled.

Angles p and q are as shown in the diagram.
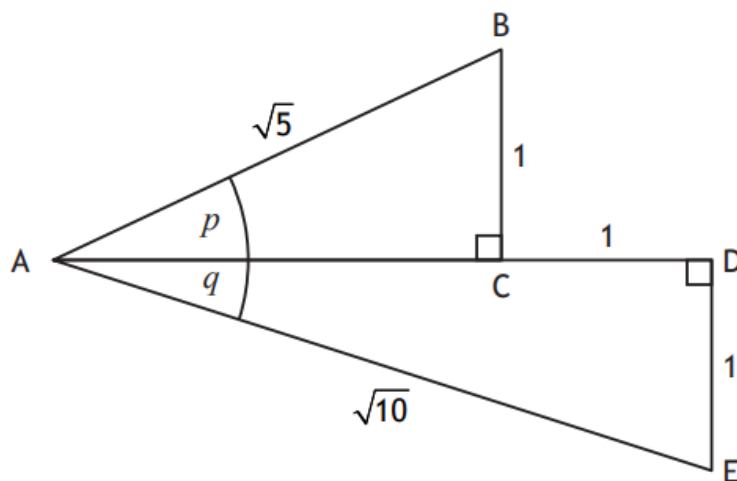
(a) Determine the value of

    (i) $\cos p$ **1**

    (ii) $\cos q$.   **1**

(b) Hence determine the value of $\sin(p+q)$.   **3**

Answers:

(a) (i) $\dfrac{2}{\sqrt{5}}$

   (ii) $\dfrac{3}{\sqrt{10}}$

(b) $\dfrac{1}{\sqrt{2}}$