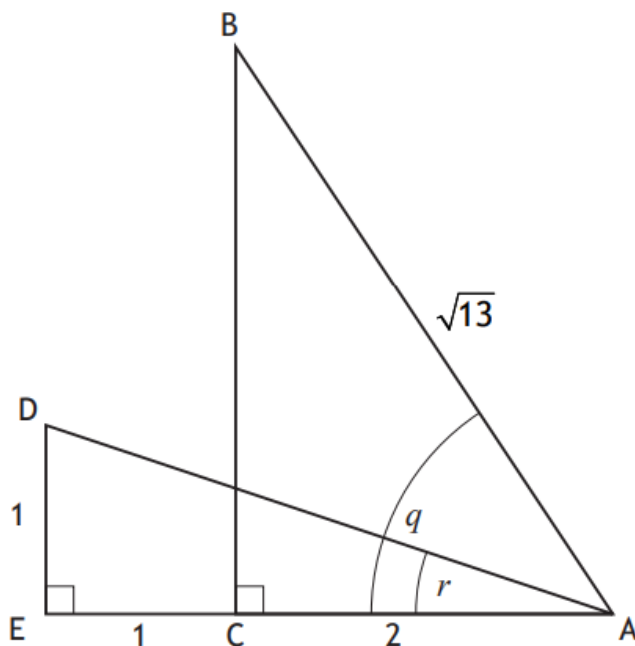


Higher Maths  
SQA 2022 Paper 1  
Question 7



Triangles ABC and ADE are both right angled.

Angle BAC =  $q$  and angle DAE =  $r$  as shown in the diagram.



(a) Determine the value of:

(i)  $\sin r$

1

(ii)  $\sin q$ .

1

(b) Hence determine the value of  $\sin(q - r)$ .

3

Answers:

(a) (i)  $\frac{1}{\sqrt{10}}$

(ii)  $\frac{3}{\sqrt{13}}$

(b)  $\frac{7}{\sqrt{130}}$