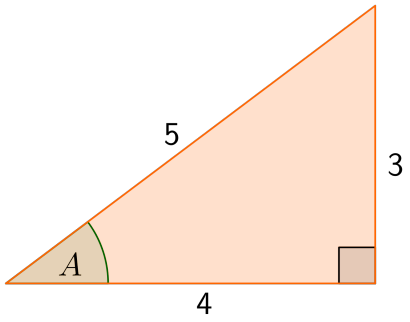
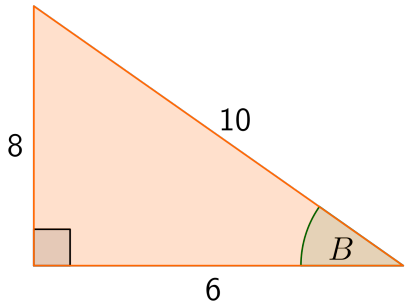
Sine, Cosine and Tangent (a)

1. Find the sin, cos and tan of the unknown angles in the following right-angled triangles.

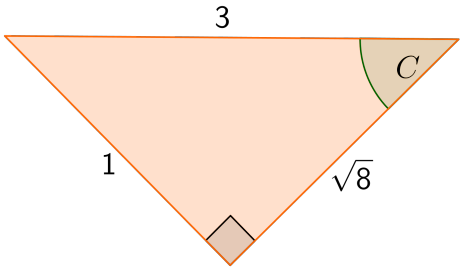
(i)



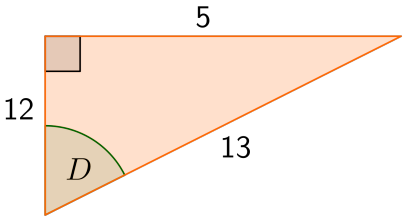
(ii)



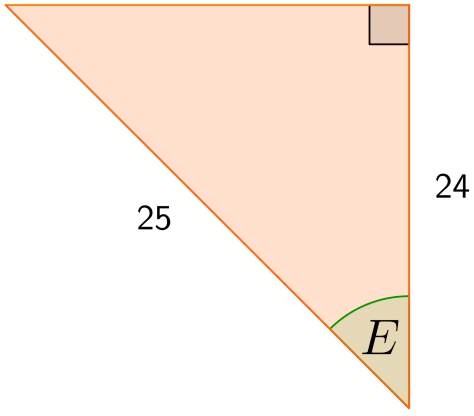
(iii)



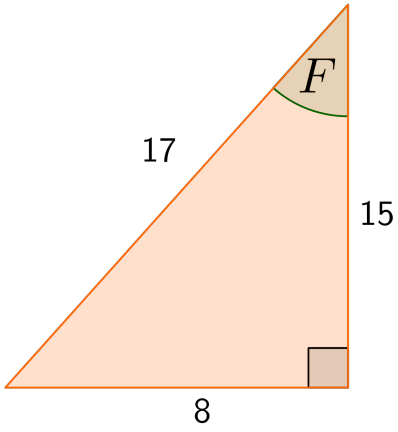
(iv)



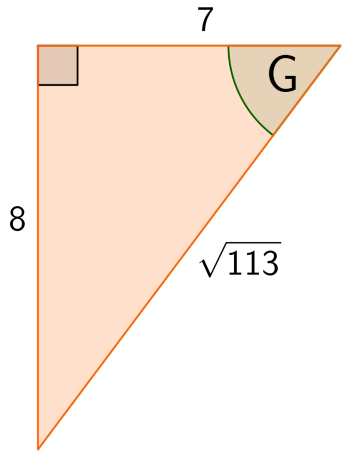
(v)



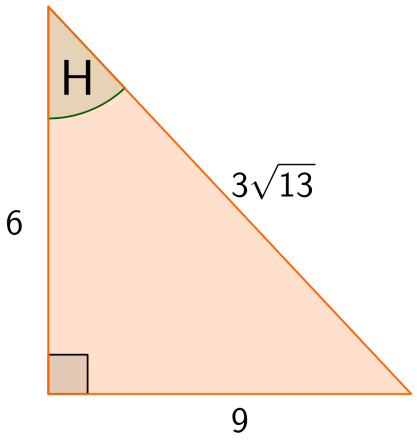
(vi)



(vii)

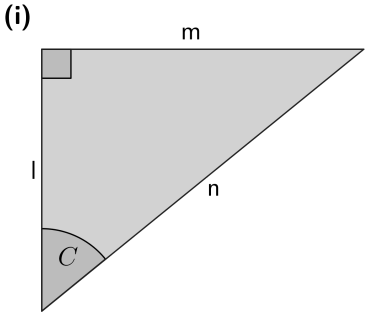


(viii)

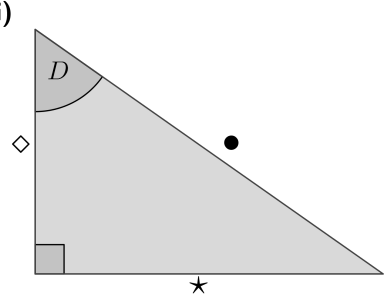


2. Find the sin, cos and tan of the angles labelled C and D in the following right-angled triangle.

(i)



(ii)



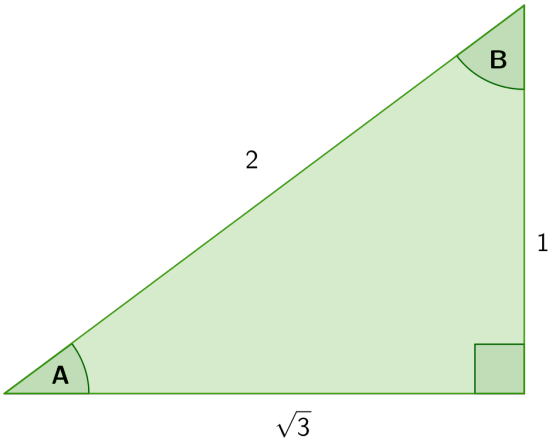
3. Are the following statements true or false in relation to the angles labelled A and B in the following diagram.
   (i) $\tan A = 1/\sqrt{3}$

   (ii) $\sin B = 1/2$

   (iii) $\cos A = \sin B$

   (iv) $\sin A = \cos B$

   (v) $\tan A = \tan B$



4. (i) Using the theorem of Pythagoras, express y in terms of x.
   (ii) Hence, what is the sin, cos and tan of angle E.
   (iii) What are the dimensions of the triangle when $x = 1$ and $x = 10$? Does this change the answer from (ii)?