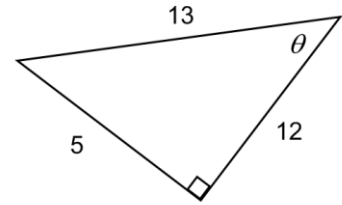
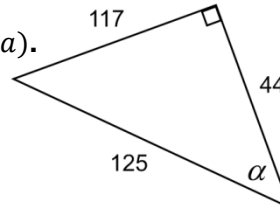


**Trigonometry of the Right Triangle – Homework** Round answers to the nearest tenth.

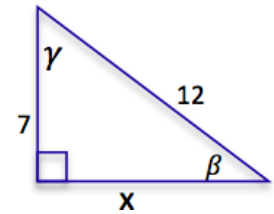
1. Evaluate the sin, cos, and tan of  $\theta$  (*theta*).



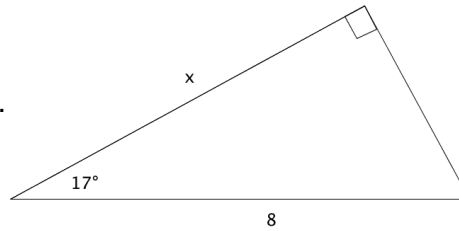
2. Evaluate the sin, cos, and tan of  $\alpha$  (*alpha*).



3. Find  $x$ . Evaluate sin, cos, and tangent of  $\beta$  (*beta*) and  $\gamma$  (*gamma*). Round answers to the nearest hundredth.



4. Find  $x$ . Evaluate tangent of  $17^\circ$ .



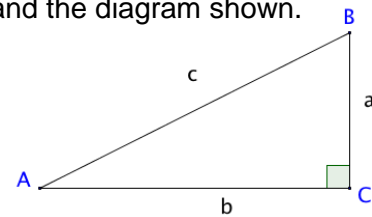
5. A right triangle has an acute angle of  $\alpha$ , and  $\sin \alpha = \frac{9}{41}$ . What is  $\tan \alpha$ ?

6. A right triangle has a hypotenuse of 9 and an angle of  $60^\circ$ , find the larger leg.

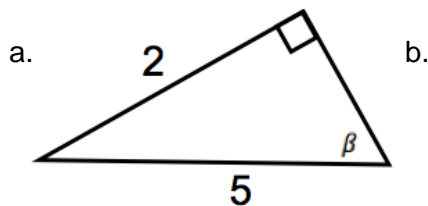
7. A right triangle has an angle of  $20^\circ$  and a longer leg of 5, find the hypotenuse.

8. Solve right triangle ABC using the measurements provided and the diagram shown.

- a.  $B = 40^\circ$ ,  $a = 19$       c.  $A = 28^\circ$ ,  $c = 11$   
 b.  $A = 50^\circ$ ,  $a = 3.1$       d.  $B = 35^\circ$ ,  $b = 24$



9. Evaluate all six trig functions of the angle,  $\beta$ . Give answers as exact values in simplified form.



20. Let  $\theta$  be an acute angle in a right triangle. Find the values of the other 5 trig functions. Give answers as exact values in simplified form.

- a.  $\sin \theta = \frac{3}{8}$       b.  $\csc \theta = \frac{3\sqrt{2}}{4}$       c.  $\tan \theta = \frac{10}{3}$