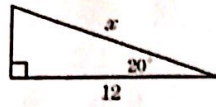


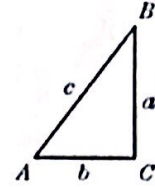
1. Which equation can be used to find the value of  $x$  in the right triangle shown?

- A.  $\cos 20^\circ = \frac{x}{12}$   
 B.  $\sin 20^\circ = \frac{12}{x}$   
 C.  $\cos 20^\circ = \frac{12}{x}$   
 D.  $\cos 70^\circ = \frac{x}{12}$



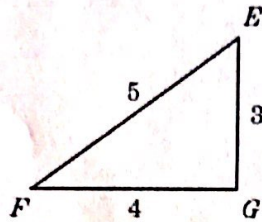
2. In the accompanying diagram of right triangle  $ABC$ ,  $\angle C$  is a right angle. Which equation is valid for  $\triangle ABC$ ?

- A.  $\cos A = \frac{c}{b}$  B.  $\tan A = \frac{b}{a}$   
 C.  $\sin A = \frac{a}{c}$  D.  $\cos B = \frac{a}{b}$



3. In the accompanying diagram, what is  $\sin E$ ?

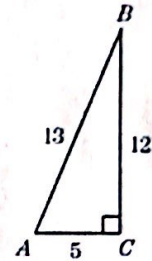
- A.  $\frac{3}{4}$  B.  $\frac{4}{3}$   
 C.  $\frac{3}{5}$   D.  $\frac{4}{5}$



4. In the accompanying diagram, the legs of right triangle  $ABC$  are 5 and 12 and the hypotenuse is 13.

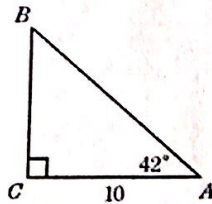
What is the value of  $\cos A$ ?

- A.  $\frac{12}{13}$  B.  $\frac{13}{5}$   
 C.  $\frac{5}{13}$  D.  $\frac{12}{5}$



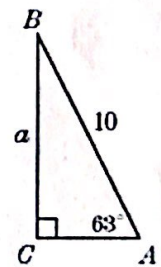
5. In the accompanying diagram,  $m\angle C = 90$ ,  $m\angle A = 42$ , and  $CA = 10$ . Which equation can be used to find  $AB$ ?

- A.  $\tan 42^\circ = \frac{10}{AB}$   
 B.  $\tan 42^\circ = \frac{AB}{10}$   
 C.  $\cos 42^\circ = \frac{AB}{10}$   
 D.  $\cos 42^\circ = \frac{10}{AB}$



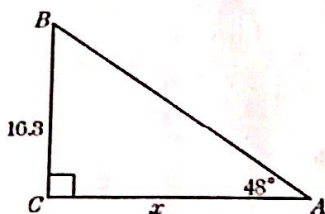
6. In right triangle  $ABC$ ,  $m\angle C = 90$ ,  $m\angle A = 63$ , and  $AB = 10$ . If  $BC$  is represented by  $a$ , then which equation can be used to find  $a$ ?

- A.  $\sin 63^\circ = \frac{a}{10}$   
 B.  $a = 10 \cos 63^\circ$   
 C.  $\tan 63^\circ = \frac{a}{10}$   
 D.  $a = \tan 27^\circ$



7. In the accompanying diagram of right triangle  $ABC$ ,  $m\angle C = 90$ ,  $m\angle BAC = 48$ ,  $AC = x$ , and  $CB = 16.3$ .

Which equation could be used to find the length of  $AC$ ?



- A.  $\sin 48 = \frac{16.3}{x}$  B.  $\cos 48 = \frac{x}{16.3}$   
 C.  $\tan 48 = \frac{16.3}{x}$  D.  $\tan 48 = \frac{x}{16.3}$

8. In the accompanying diagram of  $\triangle ABC$ , which expression can be used to determine  $m\angle A$ ?

- A.  $\sin A = \frac{12}{13}$   
 B.  $\cos A = \frac{12}{5}$   
 C.  $\cos A = \frac{5}{13}$   
 D.  $\tan A = \frac{5}{12}$

