Basic Trig Quiz-Geometry

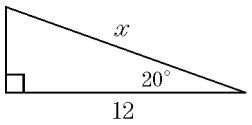
Good Luck! **/20**

qsku06d5

Name: _____ **Date:** _____

Be neat and organized as you do your work for each problem. It will be collected in class on Friday.

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



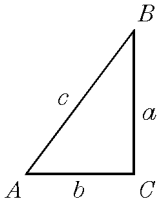
A. $\cos 20^\circ = \frac{x}{12}$

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. $\tan A = \frac{b}{a}$

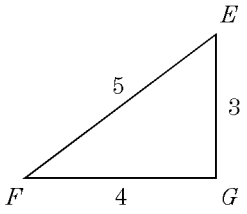
C. $\sin A = \frac{a}{c}$

D. $\cos B = \frac{a}{b}$

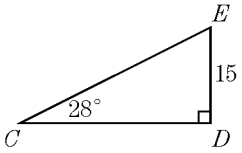
3. In the accompanying diagram, what is $\sin E$?

A. $\frac{3}{4}$ B. $\frac{4}{3}$

C. $\frac{3}{5}$ D. $\frac{4}{5}$



4. In the accompanying diagram of $\triangle CDE$, $m\angle D = 90^\circ$, $m\angle C = 28^\circ$, and $ED = 15$. Which equation can be used to find CD?



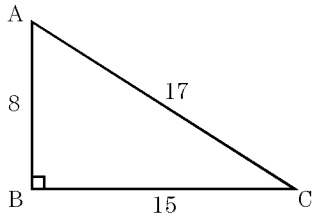
A. $\sin 28^\circ = \frac{15}{CD}$

B. $\sin 28^\circ = \frac{CD}{15}$

C. $\tan 28^\circ = \frac{15}{CD}$

D. $\tan 28^\circ = \frac{CD}{15}$

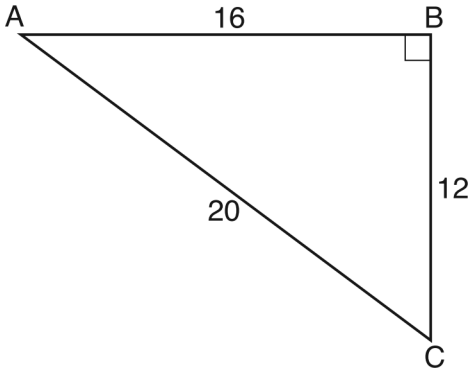
5. In the accompanying diagram of right triangle ABC, $\angle B$ is a right angle, $AB = 8$, $BC = 15$, and $CA = 17$.



What ratio is equal to $\frac{8}{17}$?

A. $\sin A$ B. $\sin C$ C. $\cos C$ D. $\tan A$

6. In right triangle ABC shown below, what is the value of $\cos A$?

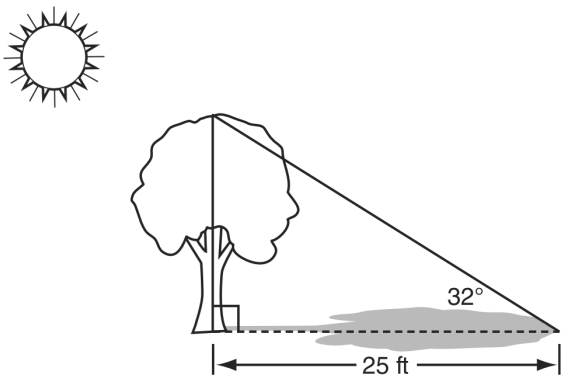


A. $\frac{12}{20}$ B. $\frac{16}{20}$ C. $\frac{20}{12}$ D. $\frac{20}{16}$

7. In right triangle ABC, $m\angle C = 90$, $m\angle A = 55$, and $CA = 10$. What is the length of $\overline{AB}$ to the *nearest integer*?

A. 6 B. 14 C. 17 D. 24

8. A tree casts a 25-foot shadow on a sunny day, as shown in the diagram below.



If the angle of elevation from the tip of the shadow to the top of the tree is 32°, what is the height of the tree to the *nearest tenth of a foot*?

A. 13.2 B. 15.6 C. 21.2 D. 40.0

9. In the diagram shown of right triangle BAC, $m\angle A = 90$, $m\angle B = 45$, and $AC = 8$.

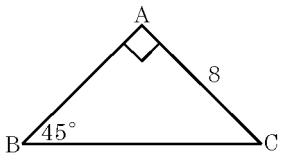
What is the length of BC?

A. $8\sqrt{3}$

B. $8\sqrt{2}$

C. $4\sqrt{2}$

D. $16\sqrt{2}$



10. A base angle of an isosceles triangle measures 30°, and the length of one of the legs is 12. What is the length of the altitude drawn to the base of the triangle?

A. $6\sqrt{3}$ B. 12 C. 6 D. 9