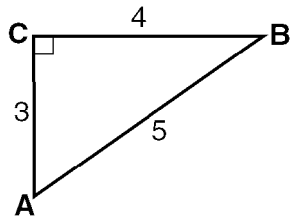
Name: _____
CC Geometry

Right Triangles Quiz Review

Questions 1 and 2 refer to the following:



1) What fraction represents the value of sin *A* in ΔABC?

A) $\frac{4}{5}$ C) $\frac{3}{4}$

B) $\frac{3}{5}$ D) $\frac{5}{4}$

2) What fraction represents the value of tan *B* in ΔABC?

A) $\frac{4}{5}$ C) $\frac{5}{3}$

B) $\frac{3}{4}$ D) $\frac{3}{5}$

3) If the lengths of the legs of a right triangle are 2 and 3, then the length of its hypotenuse is

A) $\sqrt{5}$ C) 4

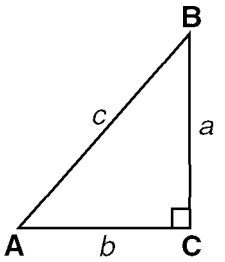
B) 5 D) $\sqrt{13}$

4) In ΔDEF, $m\angle D = 90°$, $EF = 13$, and $DF = 5$. Which expression represents cos *E*?

A) $\frac{13}{12}$ C) $\frac{12}{13}$

B) $\frac{5}{12}$ D) $\frac{5}{13}$

5) In the accompanying diagram of right triangle *ABC*, $\angle C$ is a right angle.



Which one of the following equations is valid for ΔABC?

A) $\tan A = \frac{b}{a}$ C) $\cos B = \frac{a}{b}$

B) $\sin A = \frac{a}{c}$ D) $\cos A = \frac{c}{b}$

6) In right triangle *ABC*, $\angle C$ is a right angle. If $AB = 5$ and $AC = 3$, then the value of sin *A* is

A) $\frac{3}{4}$ C) $\frac{4}{5}$

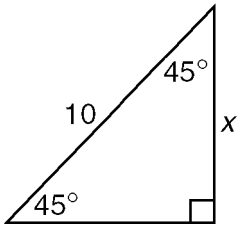
B) $\frac{3}{5}$ D) $\frac{5}{3}$

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?

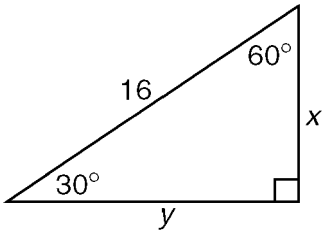
A) 14 C) 17

B) 6 D) 24

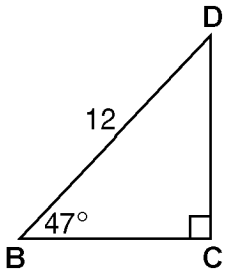
8) Use the information marked on the figure to find the value of x and/or y. [*Show all work.*]



9) Use the information marked on the figure to find the value of x and y.



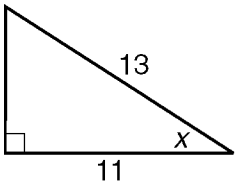
10) In right triangle BCD, $BD = 12$, $m\angle C = 90°$, and $m\angle DBC = 47°$. Find DC to the nearest tenth.



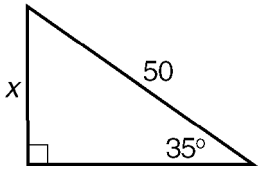
Questions 11 through 16 refer to the following:

For the given right triangle, find the value x to the nearest tenth:

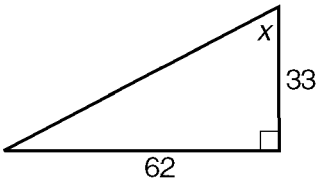
11)



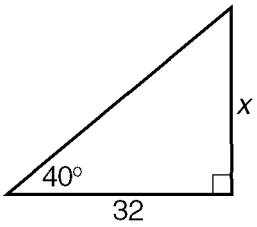
12)



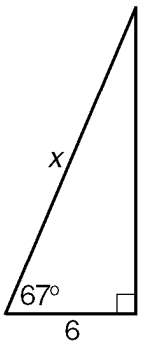
13)



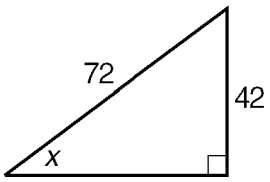
14)



15)



16)



17) In right triangle ABC, hypotenuse $AB = 10$ and $m\angle B = 53°$. Find AC to the nearest integer.

18) In ΔXYZ, $m\angle Z = 90°$, $XY = 10$, and $ZY = 8$. Find $m\angle X$ to the nearest degree.

1) A 2) B 3) D 4) C 5) B

6) C 7) C

8) $5\sqrt{2}$
WORK SHOWN: $x^2 + x^2 = 10^2$, $2x^2 = 100$, $x^2 = 50$, $x = \sqrt{50} = 5\sqrt{2}$

9) $x = 8$, $y = 8\sqrt{3}$

10) 8.8

11) 32°

12) 28.7

13) 62°

14) 26.9

15) 15.4

16) 36°

17) 8

18) 53°