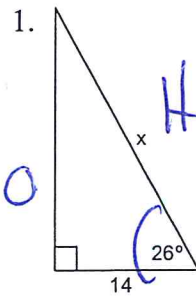
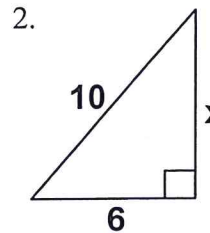
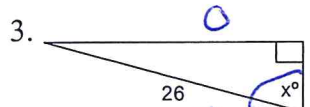


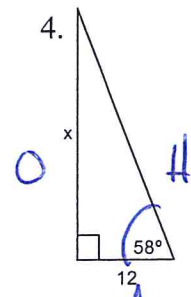
Right Triangles Practice

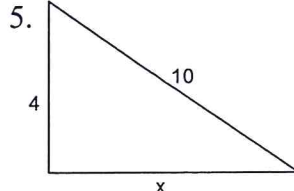
In each example, find the value of x and round to the nearest tenth if necessary

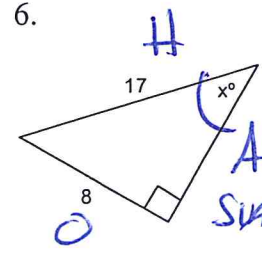
1.  $\cos \theta = \frac{A}{H}$
 $\cos 26 = \frac{14}{x}$
 $\frac{.8988}{.8988} = \frac{14}{.8988x}$
 $x = 15.6$

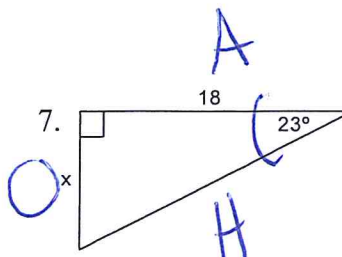
2.  $a^2 + b^2 = c^2$
 $6^2 + x^2 = 10^2$
 $36 + x^2 = 100$
 -36
 $x^2 = 64$
 $x = 8$

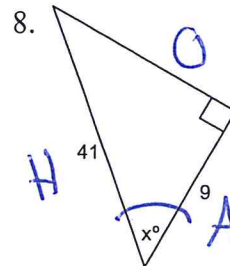
3.  $\cos \theta = \frac{A}{H}$
 $\cos^{-1} \cos x = \frac{10}{26}$
 $x = \cos^{-1} \left(\frac{10}{26} \right)$
 $x = 61.4$

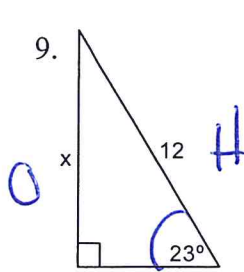
4.  $\tan \theta = \frac{O}{A}$
 $\tan 58 = \frac{x}{12}$
 $\frac{1.6003}{1} = \frac{x}{12}$
 $x = 19.2$

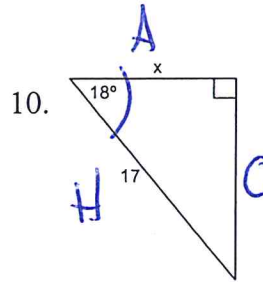
5.  $a^2 + b^2 = c^2$
 $4^2 + x^2 = 10^2$
 $16 + x^2 = 100$
 -16
 $x^2 = 84$
 $x = 9.2$

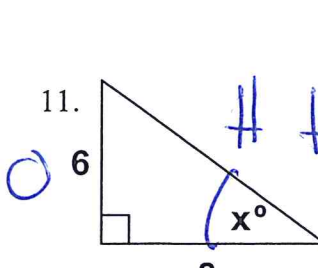
6.  $\sin \theta = \frac{O}{H}$
 $\sin x = \frac{8}{17}$
 $x = \sin^{-1} \left(\frac{8}{17} \right)$
 $x = 28.1$

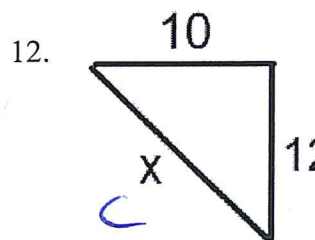
7.  $\tan \theta = \frac{O}{A}$
 $\tan 23 = \frac{x}{18}$
 $\cdot \frac{4245}{18} = \frac{x}{18}$
 $x = 7.6$

8.  $\cos \theta = \frac{A}{H}$
 $\cos x = \frac{9}{41}$
 $x = \cos^{-1}(\frac{9}{41})$
 $x = 77.3^\circ$

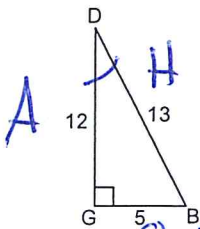
9.  $\sin \theta = \frac{O}{H}$
 $\sin 23 = \frac{x}{12}$
 $\cdot \frac{3907}{12} = \frac{x}{12}$
 $x = 4.7$

10.  $\cos \theta = \frac{A}{H}$
 $\cos 18 = \frac{x}{17}$
 $\cdot \frac{9511}{17} = \frac{x}{17}$
 $x = 16.2$

11.  $\tan \theta = \frac{O}{A}$
 $\tan x = \frac{6}{8}$
 $x = \tan^{-1}(\frac{6}{8})$
 $x = 36.9$

12.  $a^2 + b^2 = c^2$
 $10^2 + 12^2 = x^2$
 $100 + 144 = x^2$
 $\sqrt{244} = x$
 $15.6 = x$

13. Answer the following questions using the diagram below:



a) $\cos D = \frac{A}{H} = \frac{12}{13}$ b) $\sin D = \frac{O}{H} = \frac{5}{13}$ c) $\tan D = \frac{O}{A} = \frac{5}{12}$

d) $\tan B = \frac{O}{A} = \frac{12}{5}$ e) $\sin B = \frac{O}{H} = \frac{12}{13}$ f) $\cos B = \frac{A}{H} = \frac{5}{13}$

