

May 26

a) $\cos 57^\circ = 0.5446$

b) $\tan 60^\circ = 1.7321$

c) $\sin 136^\circ = 0.6947$

d) $\sin \theta = 0.8572$
 $\sin^{-1}(0.8572) = 59^\circ$

e) $\tan^{-1}(0.9657) = 44^\circ$

f) $\cos 38^\circ = 0.7880$

g) $\sin 215^\circ = -0.5736$

h) $\cos^{-1}(-0.3420) = 110^\circ$

i) $\tan 15^\circ = 0.2679$

j) $\sin^{-1}(0.9455) = 71^\circ$

$$2a) \sin 24^\circ = \frac{x}{14.8}$$

$$\frac{0.4067}{1} \rightarrow \frac{x}{14.8}$$

$$x = 14.8(0.4067)$$

$$\rightarrow x = 6$$

$$b) \tan \theta = \frac{7.6}{11.8}$$

$$\tan \theta = 0.6441$$

$$\tan^{-1}(0.6441) = 33^\circ$$

$$c) \frac{\cos 47^\circ}{1} = \frac{12.8}{x}$$

$$\frac{0.6820}{1} = \frac{12.8}{x}$$

$$0.6820x = 12.8$$

$$x = \frac{12.8}{0.6820} = 18.8$$

$$d) \cos \theta = \frac{14}{19}$$

$$\cos \theta = 0.7368$$

$$\cos^{-1}(0.7368) = 43^\circ$$

e) 13.6

f) 54°

g) -9.4

h) 43

i) 46°

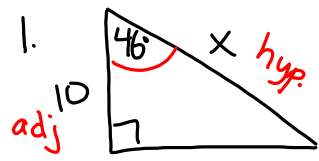
j) 19.1

k) 16.7

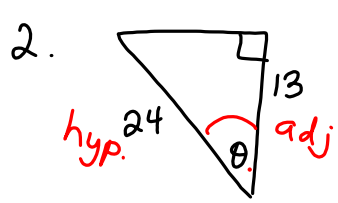
l) 44°

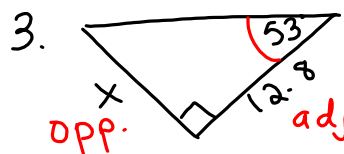
SOH CAH TOA

$\sin x = \frac{\text{opposite}}{\text{hypotenuse}}$
 $\cos x = \frac{\text{adjacent}}{\text{hypotenuse}}$
 $\tan x = \frac{\text{opposite}}{\text{adjacent}}$

1.  $\cos x = \frac{\text{adj}}{\text{hyp}}$
 $\cos 46^\circ = \frac{10}{x}$

$\frac{0.6947}{1} = \frac{10}{x}$
 $0.6947x = 10$
 $x = \frac{10}{0.6947} = 14.4$

2.  $\cos x = \frac{\text{adj}}{\text{hyp}}$
 $\cos \theta = \frac{13}{24}$
 $\cos \theta = 0.5417$
 $\cos^{-1}(0.5417) = 57^\circ$

3.  $\tan x = \frac{\text{opp}}{\text{adj}}$
 $\tan 53^\circ = \frac{x}{12.8}$
 $1.3270 = \frac{x}{12.8}$
 $12.8(1.3270) = x$
 $17 = x$

4. $x = 13.7$

5. $\theta = 38^\circ$

6. $x = 12.4$

7. $x = 12.8$

8. $x = 37.9$

9. $\theta = 30^\circ$

10. $x = 18.4$

11. $x = 12$

12. $x = 16.8$

13. $\theta = 64^\circ$

14. $x = 16.4$