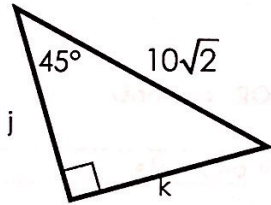
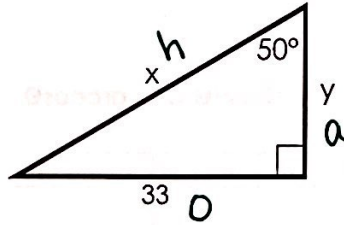


**Day 8 - Solving for Missing Angle/Side Measures - Practice**

1. 45-45-90 Triangle  
 $j = 10, k = 10$



2.  $x = 43.1, y = 27.7$



$$\frac{\tan 50^\circ}{1} = \frac{33}{y}$$

$$y \cdot \tan 50 = 33$$

$$y = \frac{33}{\tan 50}$$

$$y \approx 27.7$$

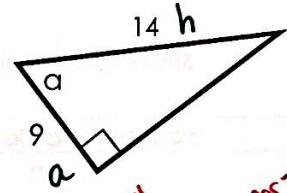
$$\frac{\sin 50}{1} = \frac{33}{x}$$

$$x \cdot \sin 50 = 33$$

$$x = \frac{33}{\sin 50}$$

$$x \approx 43.1$$

3.  $a = 50^\circ$

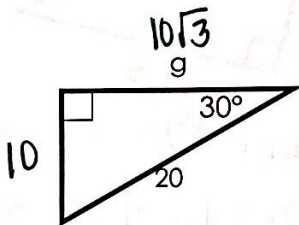


$$\cos a = \frac{9}{14}$$

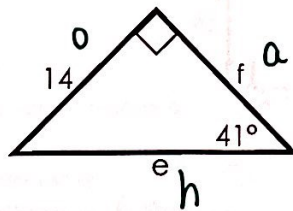
$$a = \cos^{-1}\left(\frac{9}{14}\right)$$

$$a \approx 50^\circ$$

4. 30-60-90 Triangle  
 $g = 10\sqrt{3}$



5.  $e = 21.3, f = 16.1$



$$\frac{\tan 41}{1} = \frac{14}{f}$$

$$f \cdot \tan 41 = 14$$

$$f = \frac{14}{\tan 41}$$

$$f = 16.1$$

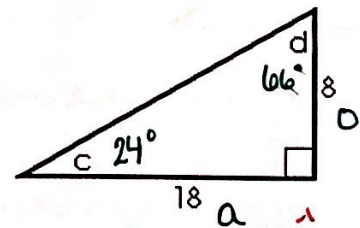
$$\frac{\sin 41}{1} = \frac{14}{e}$$

$$e \cdot \sin 41 = 14$$

$$e = \frac{14}{\sin 41}$$

$$e = 21.3$$

6.  $c = 24^\circ, d = 66^\circ$



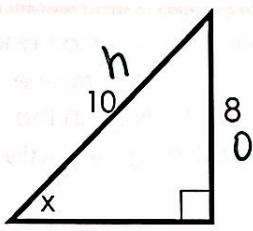
$$\tan c = \frac{8}{18}$$

$$c = \tan^{-1}\left(\frac{8}{18}\right)$$

$$c \approx 24^\circ$$

$$d = 90 - 24 = 66$$

7.  $x = 53.1^\circ$

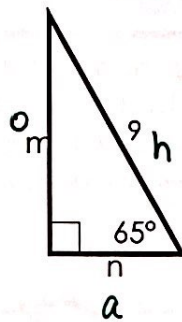


~~Sin~~  $\sin^{-1} x = \frac{8}{10}$

$x = \sin^{-1} \left( \frac{8}{10} \right)$

$x = 53.1$

8.  $m = 8.2, n = 3.8$



$\frac{\sin 65}{1} = \frac{m}{9}$

$m = 9 \cdot \sin 65$

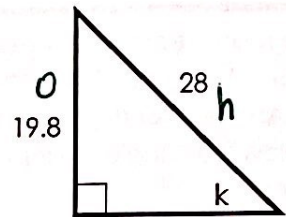
$m \approx 8.2$

$\frac{\cos 65}{1} = \frac{n}{9}$

$n = 9 \cdot \cos 65$

$n \approx 3.8$

9.  $k = 45^\circ$

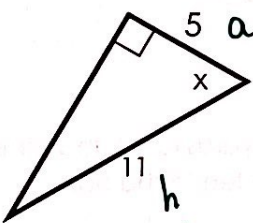


~~Sin~~  $\sin^{-1} k = \frac{19.8}{28}$

$k = \sin^{-1} \left( \frac{19.8}{28} \right)$

$k \approx 45^\circ$

10.  $x = 63^\circ$

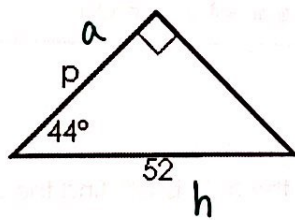


~~cos~~  $\cos^{-1} x = \frac{5}{11}$

$x = \cos^{-1} \left( \frac{5}{11} \right)$

$x \approx 63^\circ$

11.  $p = 37.4$

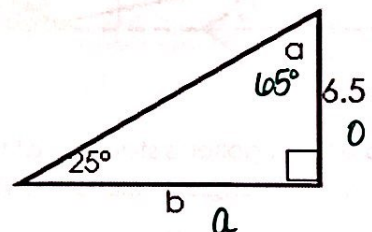


$\frac{\cos 44}{1} = \frac{p}{52}$

$p = 52 \cdot \cos 44$

$p = 37.4$

12.  $a = 65^\circ, b = 13.9$



$\frac{\tan 25}{1} = \frac{6.5}{b}$

$b \cdot \tan 25 = 6.5$

$b = \frac{6.5}{\tan 25}$

$b = 13.9$