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#1-23, 27, 29, 103, 105 ODDS ONLY

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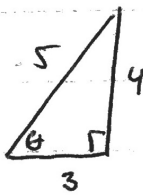
1. $\sin \theta = \frac{8\sqrt{2}}{18} = \frac{4\sqrt{2}}{9}$ $\csc \theta = \frac{9}{4\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{9\sqrt{2}}{8}$
 $\cos \theta = \frac{14}{18} = \frac{7}{9}$ $\sec \theta = \frac{9}{7}$
 $\tan \theta = \frac{8\sqrt{2}}{14} = \frac{4\sqrt{2}}{7}$ $\cot \theta = \frac{7}{4\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{7\sqrt{2}}{8}$

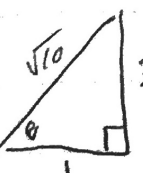
3. $\sin \theta = \frac{9}{\sqrt{97}} \cdot \frac{\sqrt{97}}{\sqrt{97}} = \frac{9\sqrt{97}}{97}$ $\csc \theta = \frac{\sqrt{97}}{9}$
 $\cos \theta = \frac{4}{\sqrt{97}} \cdot \frac{\sqrt{97}}{\sqrt{97}} = \frac{4\sqrt{97}}{97}$ $\sec \theta = \frac{\sqrt{97}}{4}$
 $\tan \theta = \frac{9}{4}$ $\cot \theta = \frac{4}{9}$

5. $\sin \theta = \frac{\sqrt{165}}{29}$ $\csc \theta = \frac{29}{\sqrt{165}} \cdot \frac{\sqrt{165}}{\sqrt{165}} = \frac{29\sqrt{165}}{165}$
 $\cos \theta = \frac{26}{29}$ $\sec \theta = \frac{29}{26}$
 $\tan \theta = \frac{\sqrt{165}}{26}$ $\cot \theta = \frac{26}{\sqrt{165}} \cdot \frac{\sqrt{165}}{\sqrt{165}} = \frac{26\sqrt{165}}{165}$

7. $\sin \theta = \frac{6}{10} = \frac{3}{5}$ $\csc \theta = \frac{5}{3}$
 $\cos \theta = \frac{8}{10} = \frac{4}{5}$ $\sec \theta = \frac{5}{4}$
 $\tan \theta = \frac{6}{8} = \frac{3}{4}$ $\cot \theta = \frac{4}{3}$

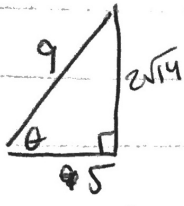
$6^2 + x^2 = 10^2$
 $x^2 = 64$
 $x = 8$

9.  $\sin \theta = \frac{4}{5}$ $\csc \theta = \frac{5}{4}$
 $\cos \theta = \frac{3}{5}$ $\sec \theta = \frac{5}{3}$
 $\tan \theta = \frac{4}{3}$ $\cot \theta = \frac{3}{4}$

11.  $\tan \theta = \frac{3}{1} = 3$ $\cot \theta = \frac{1}{3}$
 $\sin \theta = \frac{3}{\sqrt{10}} \cdot \frac{\sqrt{10}}{\sqrt{10}} = \frac{3\sqrt{10}}{10}$ $\csc \theta = \frac{\sqrt{10}}{3}$
 $\cos \theta = \frac{1}{\sqrt{10}} = \frac{\sqrt{10}}{10}$ $\sec \theta = \sqrt{10}$

$1^2 + 3^2 = c^2$
 $10 = c^2$

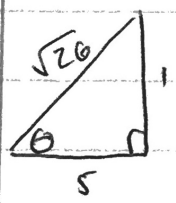
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$5^2 + b^2 = 9^2$
 $b^2 = 50$
 $b = 2\sqrt{14}$

$\sin \theta = \frac{2\sqrt{14}}{9}$
 $\cos \theta = \frac{5}{9}$
 $\tan \theta = \frac{2\sqrt{14}}{5}$
 $\csc \theta = \frac{9}{2\sqrt{14}} \cdot \frac{\sqrt{14}}{\sqrt{14}} = \frac{9\sqrt{14}}{28}$
 $\sec \theta = \frac{9}{5}$
 $\cot \theta = \frac{5}{2\sqrt{14}} \cdot \frac{\sqrt{14}}{\sqrt{14}} = \frac{5\sqrt{14}}{28}$

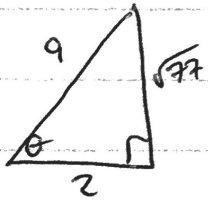
15.



$1^2 + 5^2 = c^2$
 $26 = c^2$
 $\sqrt{26} = c$

$\sin \theta = \frac{1}{\sqrt{26}} = \frac{\sqrt{26}}{26}$
 $\cos \theta = \frac{5}{\sqrt{26}} = \frac{5\sqrt{26}}{26}$
 $\tan \theta = \frac{1}{5}$
 $\csc \theta = \sqrt{26}$
 $\sec \theta = \frac{\sqrt{26}}{5}$
 $\cot \theta = 5$

17.



$2^2 + b^2 = 9^2$
 $b^2 = 77$
 $b = \sqrt{77}$

$\sin \theta = \frac{\sqrt{77}}{9}$
 $\cos \theta = \frac{2}{9}$
 $\tan \theta = \frac{\sqrt{77}}{2}$
 $\csc \theta = \frac{9}{\sqrt{77}} = \frac{9\sqrt{77}}{77}$
 $\sec \theta = \frac{9}{2}$
 $\cot \theta = \frac{2}{\sqrt{77}} = \frac{2\sqrt{77}}{77}$

19. $\sin 17 = \frac{x}{11}$

$x = 3.2$

21. $\cos 35 = \frac{x}{5}$

$x = 4.1$

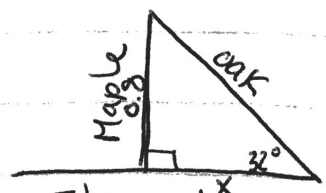
23. $\sin 19 = \frac{14}{x}$

$x = 43$

27. $\tan 35 = \frac{x}{25}$

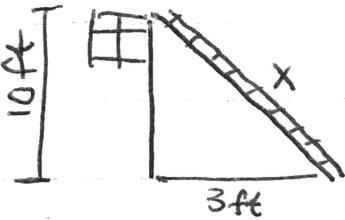
$x = 17.5 \text{ ft}$

29.



$\tan 32 = \frac{0.8}{x}$
 $x = 1.28 \text{ mi}$

103.

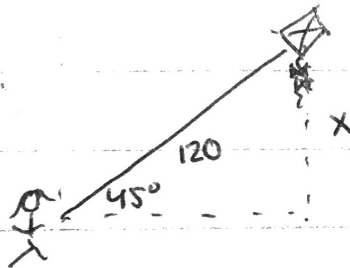


$$10^2 + 3^2 = x^2$$

$$109 = x^2$$

$$\sqrt{109} = x \quad x = 10.44 \text{ (6)}$$

105.



$$\sin 45 = \frac{x}{120}$$

$$x = 84.85 \text{ ft}$$

(6)