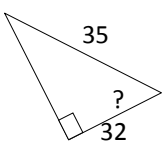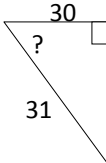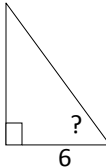10.8
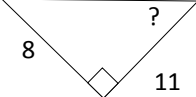
1) $\sin z = 0.4848$
$z = 29°$
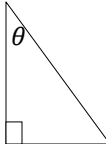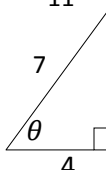
3) $\sin y = 0.6561$
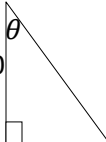$y = 41°$

5)

$\cos x = \frac{32}{35}$
$\cos x = .9143$
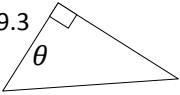$x = 24°$

7)

$\cos x = \frac{30}{31}$
$\cos x = .9677$
$x = 15°$

9)

$\tan x = \frac{3}{6}$
$\tan x = .5$
$x = 27°$
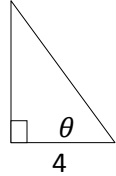
11)

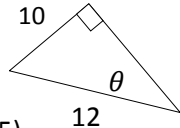$\tan \theta = \frac{11}{8}$
$\tan \theta = .7273$
$\theta = 36°$

13)

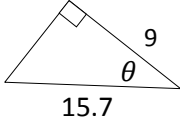$\cos \theta = \frac{4}{7}$
$\cos \theta = 0.5714$
$\theta = 55.2°$

15)

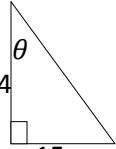$\cos \theta = \frac{4}{7}$
$\cos \theta = 0.5714$
$\cos \theta = 55.2°$

17)

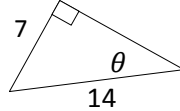$\tan \theta = \frac{16}{10}$
$\tan \theta = 1.6$
$\tan \theta = 58°$

19)

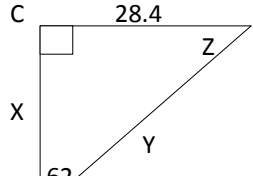$\cos \theta = \frac{9.3}{13.2}$
$\cos \theta = 0.7045$
$\cos \theta = 45.2°$

21)

$\tan \theta = \frac{5}{4}$
$\tan \theta = 1.25$
$\tan \theta = 51.3°$

23)

$\sin \theta = \frac{10}{12}$
$\sin \theta = 0.8333$
$\sin \theta = 56.4°$
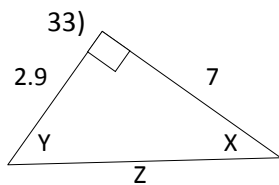
25)

$\cos \theta = \frac{9}{15.7}$
$\cos \theta = 0.5732$
$\cos \theta = 55°$

27)

$\tan \theta = \frac{15}{14}$
$\tan \theta = 1.0714$
$\tan \theta = 47°$

29)

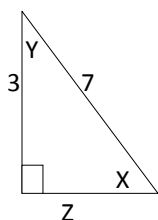$sin\ \theta = \frac{7}{14}$
$\sin \theta = 0.5$
$\sin \theta = 30°$

31)

$(x)\tan 62 = \frac{28.4}{x}(x)$
$\frac{x \tan 62}{\tan 62} = \frac{28.4}{\tan 62}$
$x = \frac{28.4}{\tan 62}$
$x = \frac{28.4}{1.8507}$
$x = 15.1$
$15.1^2 + 28.4^2 = y^2$
$228.01 + 806.56 = y^2$
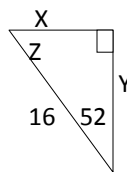$\sqrt{1034.57} = \sqrt{y^2}$
$32.2 = y$
$z = 90 - 62$
$z = 28°$

33)

$\tan x = \frac{2.9}{7}$

$\tan x = .4143$

$x = 22.5°$

$y = 90 - 22.5$

$y = 67.5°$

$2.9^2 + 7^2 = z^2$

$8.41 + 49 = z^2$

$\sqrt{57.41} = \sqrt{z^2}$

$7.6 = z$

35)

$\sin x = \frac{3}{7}$

$\sin x = .4286$

$x = 25.4°$

$y = 90 - 25.4$

$y = 64.6°$

$3^2 + z^2 = 7^2$

$9 + z^2 = 49$

$\underline{-9 \qquad -9}$

$\sqrt{z^2} = \sqrt{40}$

$z = 6.3$

37)

$(16) \sin 52 = \frac{x}{16}(16)$

$16 \sin 52 = x$

$16(.7880) = x$

$12.6 = x$

$12.6^2 + y^2 = 16^2$

$158.76 + y^2 = 256$

$\underline{-158.76 \qquad -158.76}$

$\sqrt{y^2} = \sqrt{97.24}$

$y = 9.9$

$z = 90 - 52$

$z = 38°$

39)
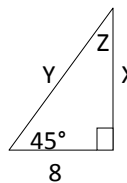
$(8) \tan 45 = \frac{x}{8}(8)$

$8 \tan 45 = x$

$8(1) = x$

$8 = x$

$8^2 + 8^2 = y^2$

$64 + 64 = y^2$

$\sqrt{128} = \sqrt{y^2}$

$11.3 = y$

$z = 90 - 45$

$z = 45°$