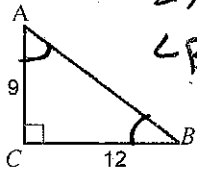


Find the missing side and angle measures for each triangle. Round answers to the nearest tenth where appropriate.

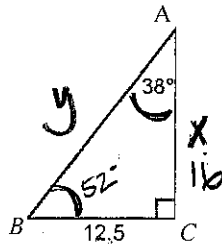
1) $\angle A = 53^\circ$ $AB = 15$
 $\angle B = 37^\circ$



$$9^2 + 12^2 = c^2$$

$$\tan A = \frac{12}{9} \quad \tan B = \frac{9}{12}$$

2)

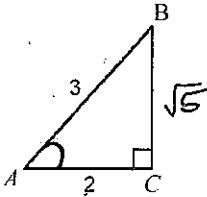


$$\tan 38 = \frac{12.5}{x} \quad x = 16$$

$$\sin 38 = \frac{12.5}{y} \quad y = 20.3$$

$$\tan B = \frac{16}{12.5} \quad \angle B = 52^\circ$$

3)



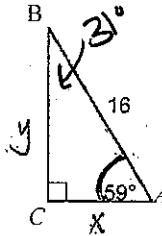
$$2^2 + b^2 = 3^2$$

$$BC = \sqrt{5}$$

$$\cos A = \frac{2}{3} \quad \angle A = 48^\circ$$

$$\sin B = \frac{2}{3} \quad \angle B = 42^\circ$$

4)



$$\angle B = 31^\circ$$

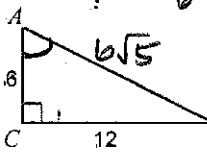
$$\sin(59) = \frac{y}{16}$$

$$y = 13.71$$

$$\cos(59) = \frac{x}{16}$$

$$x = 8.24$$

5)



$$b^2 + 12^2 = c^2$$

$$\sqrt{180} = \sqrt{c^2}$$

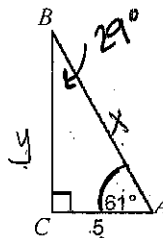
$$AB = 6\sqrt{5}$$

$$\sqrt{180} = 6\sqrt{5}$$

$$\tan A = \frac{12}{8} \quad \angle A = 63^\circ$$

$$\tan B = \frac{8}{12} \quad \angle B = 27^\circ$$

6)

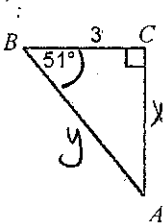


$$\cos(61) = \frac{5}{x} \quad x = 10.31$$

$$\tan(61) = \frac{y}{5} \quad y = 9.02$$

$$\angle B = 29^\circ$$

7)



$$\cos(51) = \frac{3}{y}$$

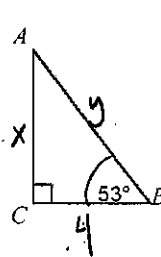
$$y = 4.71$$

$$\tan(51) = \frac{x}{3}$$

$$x = 3.7$$

$$\angle A = 39^\circ$$

8)

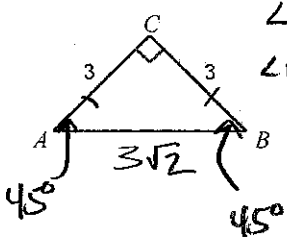


$$\tan(53) = \frac{x}{4} \quad x = 5.31$$

$$\cos(53) = \frac{4}{y} \quad y = 6.65$$

$$\angle A = 37^\circ$$

9)

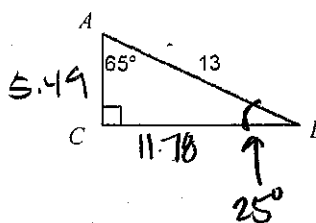


$$\angle A = 45^\circ$$

$$\angle B = 45^\circ$$

$$AB = 3\sqrt{2}$$

10)



$$\sin(65) = \frac{x}{13}$$

$$x = 11.78$$

$$\cos(65) = \frac{y}{13}$$

$$y = 5.49$$