

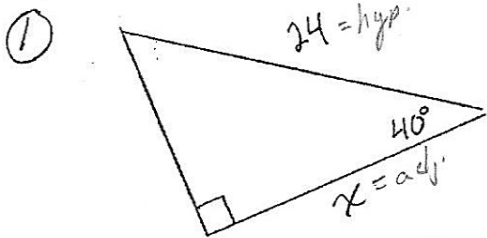
Pre-Calculus  
Trig Review

Name \_\_\_\_\_

Date \_\_\_\_\_

A# \_\_\_\_\_

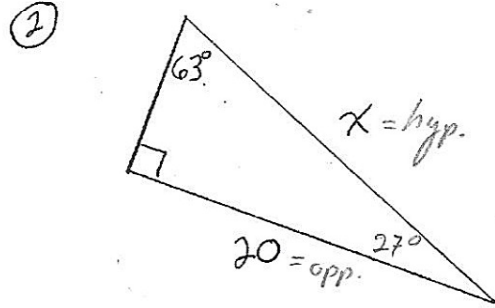
Find x and y. Write all answers to 3 decimal places.



$$\cos 40^\circ = \frac{x}{24}$$

$$x = 24 (\cos 40^\circ)$$

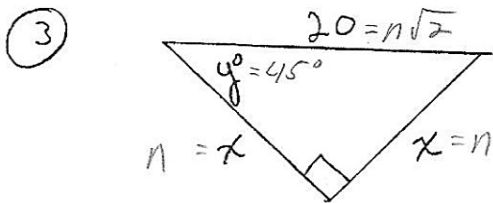
$$x = 18.385$$



$$\sin 63^\circ = \frac{20}{x}$$

$$x \cdot \sin 63^\circ = 20$$

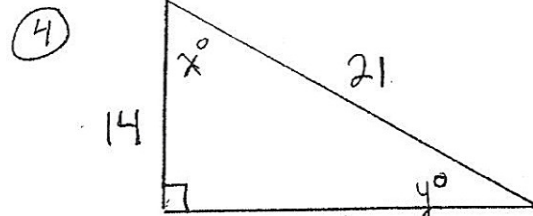
$$x = \frac{20}{\sin 63^\circ} = 22.447$$



$$20 = n\sqrt{2}$$

$$10\sqrt{2} = n$$

$$x = 10\sqrt{2} = 14.142$$

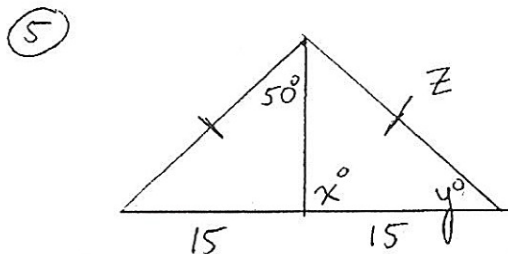


$$x = 90 - y$$

$$\sin y^\circ = \frac{14}{21}$$

$$x = 48.190$$

$$y^\circ = \sin^{-1}\left(\frac{14}{21}\right) \approx 41.810$$



$$x = 90^\circ$$

$$y = 40^\circ$$

$$\cos 40^\circ = \frac{15}{z}$$

$$z \cdot \cos 40^\circ = 15$$

$$z = \frac{15}{\cos 40^\circ}$$

$$z = 19.581$$



$$y = 90^\circ$$

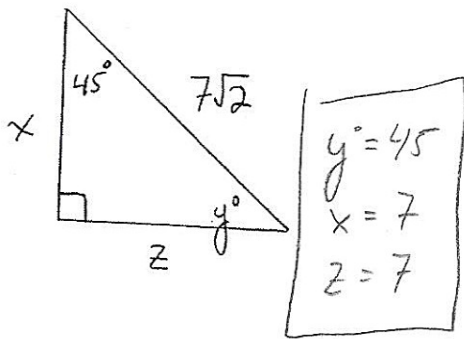
$$\tan x^\circ = \frac{4}{3}$$

$$x^\circ = \tan^{-1}\left(\frac{4}{3}\right)$$

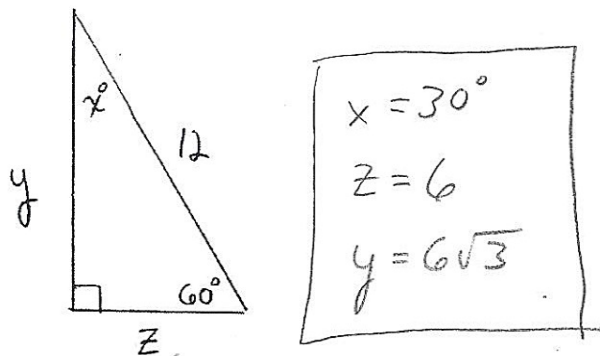
$$x^\circ = 53.130$$

$$z = 36.870$$

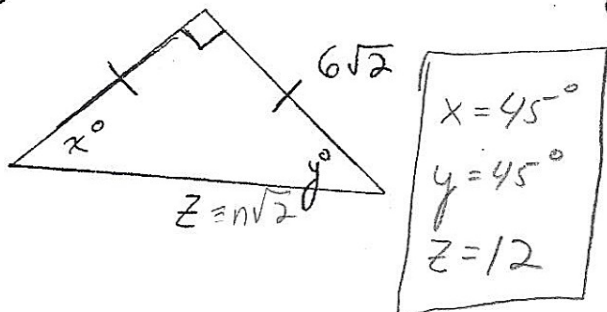
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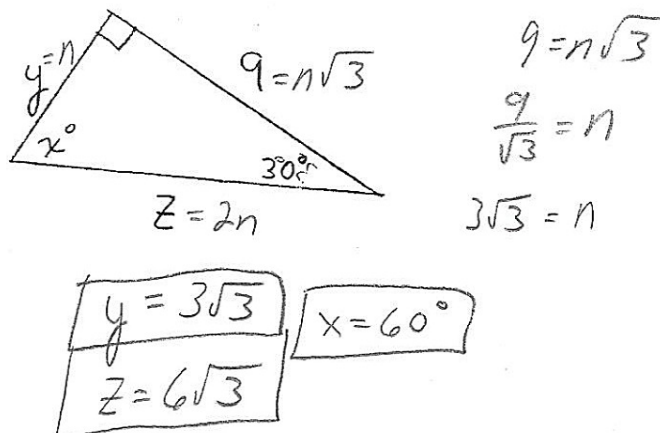
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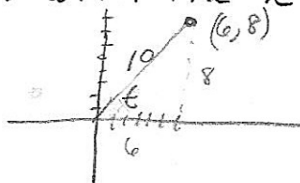
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11 a) Write the equation of a circle with a point  $A(6, 8)$  on the circle and the origin as the center.

b) Consider the radius  $\overline{AO}$ . What is the angle measure that the radius makes with the  $x$ -axis?

a)  $x^2 + y^2 = 100$



$\tan \theta = \frac{8}{6}$

$\theta = \tan^{-1}\left(\frac{8}{6}\right)$

$\theta = 53.130$

12) The Goodyear Blimp spots Candlestick park with an angle of depression of  $7^\circ$ . The pilot looks at the gps and notes that their vertical elevation is 4,000 ft. What is the blimp's horizontal distance from the park?



$\tan 7^\circ = \frac{4000}{x}$

$x \tan 7 = 4000$

$x = \frac{4000}{\tan 7} \approx 32,577 \text{ ft}$