

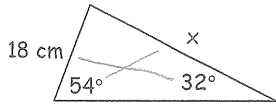
Name Key

Homework Day 4 Law of Sines

* 1-11 Round to the thousandths. Show work!!

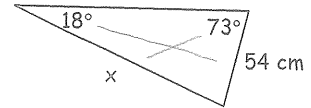
1-7 Find the value of x.

27.480 1)



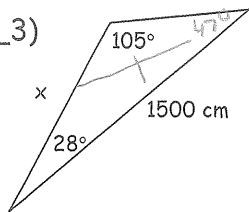
$$\frac{x}{\sin 54} = \frac{18}{\sin 32}$$

167.112 2)



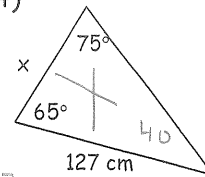
$$\frac{54}{\sin 18} = \frac{x}{\sin 73}$$

1135.730 3)



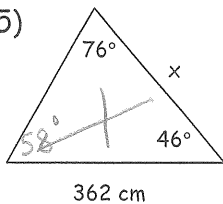
$$\frac{x}{\sin 28} = \frac{1500}{\sin 105}$$

84.514 4)



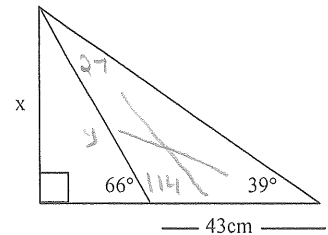
$$\frac{x}{\sin 65} = \frac{127}{\sin 75}$$

316.392 5)



$$\frac{362}{\sin 76} = \frac{x}{\sin 58}$$

54.453 6)

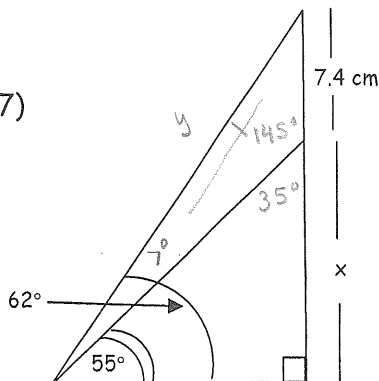


$$\frac{43}{\sin 27} = \frac{y}{\sin 39}$$

$$y = 59.606$$

$$\sin 66 = \frac{x}{y}$$

23.351 7)



$$\frac{7.4}{\sin 7} = \frac{y}{\sin 145}$$

$$y = 34.828$$

$$\sin 62 = \frac{x + 7.4}{y}$$

$$\sin 62 (34.828) - 7.4 = x$$

$$23.351 = x$$

OVER →

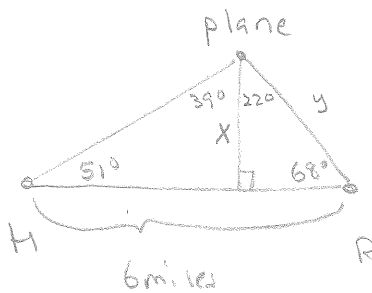
20.967 cm 8) The measures of 2 angles of a Δ are 35° and 65° , and the length of the longest side of the Δ is 36 cm. Find the length of the shortest side of the Δ .



$$\frac{36}{\sin 80} = \frac{X}{\sin 35}$$

$$X = 20.967 \text{ cm}$$

4.943 mi 9) The \angle of elevation from Haben to a plane in the air is 51° , while at the same time the \angle of elevation from Robert to the plane is 68° . If Haben and Robert are 6 miles apart, then what's the height of the plane? (The plane is between them but not exactly halfway.)



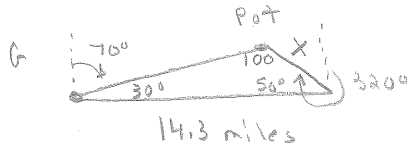
$$\frac{6}{\sin 61} = \frac{y}{\sin 51}$$

$$y = 5.331$$

$$\sin 68^\circ = \frac{x}{y}$$

$$X = 4.943 \text{ miles}$$

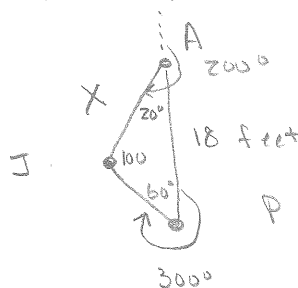
7.260 mile 10) The bearing from George to a pot of gold is 70° . George drives 14.3 miles due east and now the bearing from George to the pot of gold is 320° . What distance is George now from the pot of gold?



$$\frac{14.3}{\sin 100} = \frac{X}{\sin 30}$$

$$X = 7.260 \text{ miles}$$

15.829 ft 11) Patty is standing 18 ft due south of Andres. The bearing from Andres to Joseph is 200° while the bearing from Patty to Joseph is 300° . Find the distance from Andres to Joseph.



$$\frac{X}{\sin 60} = \frac{18}{\sin 100}$$

$$X = 15.829 \text{ feet}$$