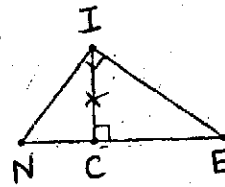


Mrs. Brown's Chapter 8 Practice Test

Take this test on your own paper and check your solutions with key. Remember to show me your practice test by your actual Ch 8 test day to get 3 points extra credit!

#1-3, Use diagram at right.



1. Name a triangle similar to $\triangle NIC$

$\triangle IEC$
or $\triangle NEI$

2. Finish this proportion: $\frac{5}{H} = \frac{NC}{NI} = \frac{?}{EI} = \frac{5}{H}$

IC

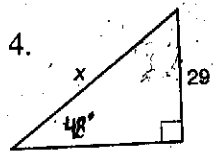
3. If $CE = 20$ and $NC = 8$, find NE .

$$\frac{20}{x} = \frac{x}{8}$$

$$x^2 = 160$$

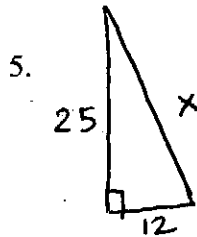
$$x = 12.65$$

#4-7, Solve for x.



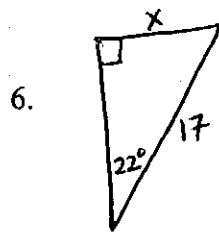
$$\sin 48 = \frac{29}{x}$$

$$39.02 = x$$



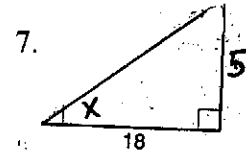
$$12^2 + 25^2 = x^2$$

$$27.73$$



$$\sin 22 = \frac{x}{17}$$

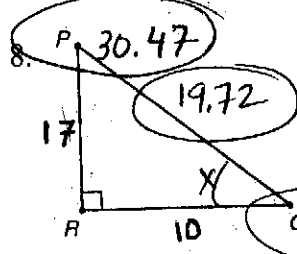
$$6.37$$



$$\tan x = \frac{5}{18}$$

$$15.52$$

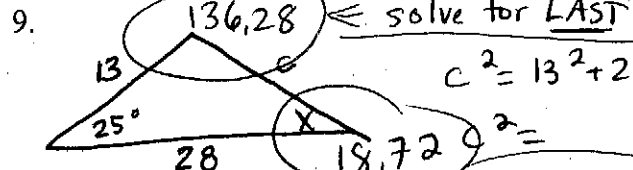
#8-9, Solve the triangle.



$$17^2 + 10^2 = x^2$$

$$\tan x = \frac{17}{10}$$

$$59.53$$



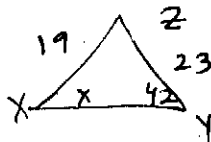
solve for LAST

$$c^2 = 13^2 + 28^2 - (2 \cdot 13 \cdot 28 \cos 25)$$

$$c = 17.12$$

$$\frac{\sin 25}{17.12} = \frac{\sin x}{13}$$

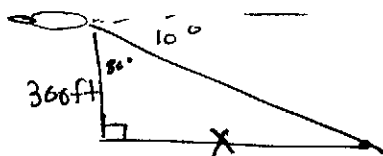
10. In $\triangle XYZ$, $x = 23$, $y = 19$ and $m\angle Y = 42^\circ$, Solve for $m\angle X$



$$\frac{\sin x}{23} = \frac{\sin 42}{19}$$

$$54.10^\circ$$

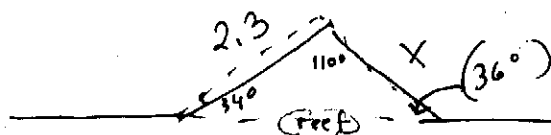
11. A submarine is surfaced, or, at sea level. It dives 300 ft. The angle of depression for the dive is 10° . What was the horizontal distance it took for the submarine to make the dive?



$$\tan 80 = \frac{x}{300}$$

$$1701.38 \text{ ft}$$

12. A boat traveling due east has to turn to avoid shallow water over a reef. The boat turns off its original course 34° to the north. The boat travels for 2.3 miles, then makes another turn back towards the original course. The angle between these two lines the boat has traveled on is 110° . How far does the boat need to travel before it will hit the line representing the original course?



$$\frac{\sin 34}{x} = \frac{\sin 36}{2.3}$$

$$2.19 \text{ miles}$$