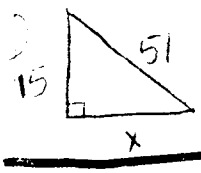
* Geometry Honors

Right Δs Pre-Test

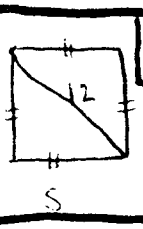
1) Fill in the blank. Statements based on your knowledge of 45-45-90 Δ and 30-60-90 Δs.

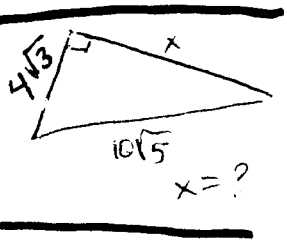
2) Simplify $10\sqrt{300}$.

3) 

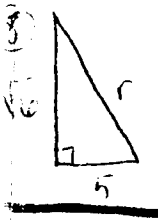
x = ?

4) If a Δ has lengths 149, $12, \sqrt{5}$, is it a rt Δ?

5) 

6) 

x = ?

7) 

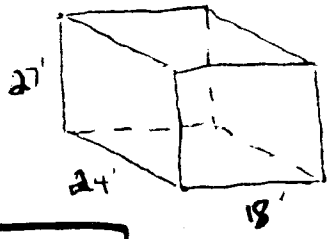
r = ?

8) What is the length of the hypotenuse of a right Δ with legs of 70' and 240'?

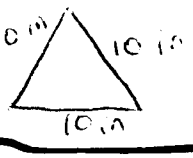
16) Detective Evan Martinez climbs into his jeep and heads north at 15 mph. After 3 hrs, he stops, picks up the impt. package and heads east @ 80 mph for a half an hour. How far is he from the starting point? (to the nearest mile)

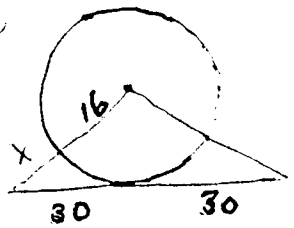
17) Find the length of the diagonal of a square if each side has a length of $8\sqrt{6}$.

18) What's the length of the longest stick that could be placed in the box?



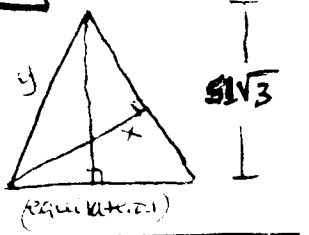
19) A = ?



31) 

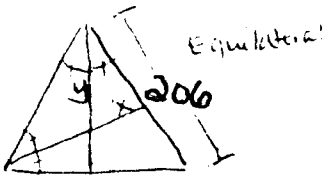
32) x = ?

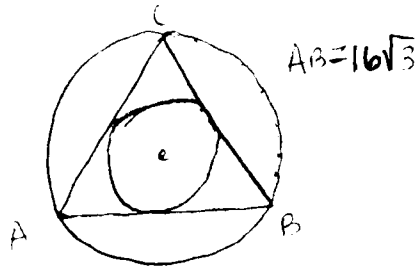
33) y = ?



34) x = ?

35) y = ?





36) $A_{\Delta ABC}$ = ?

37) A inscribed ⊙ = ?

38) A circum. ⊙ = ?

with legs of 70' and 240'?

2. Find the area of a rt Δ with a hypotenuse of 24" and a leg of 3".

3. Find the perimeter of a rectangle with a diagonal of 34 cm and a side of 30 cm

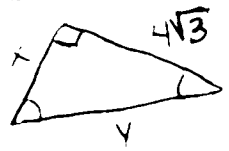
3. How high up on a bldg will a 50 ft ladder reach if the foot of the ladder is placed 10' from the bldg? Use $\sqrt{6} = 2.4$ to approximate.

3. A baseball infield is a square, each side measuring 90'. What is the distance from home plate to 2nd base?

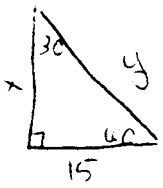
4. A flagpole has cracked 20' from the ground + fallen as if hinged. The top of the flagpole hit the ground 42' from the base. How tall was the flagpole before it fell?

5. A 16' ladder is placed against a bldg. The bottom of the ladder is 8' from the bldg. If the top of the ladder slips down 5', how many feet will the bottom slide out? (Round to the nearest tenth).

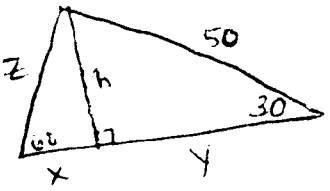
(20) x=?
(21) y=?



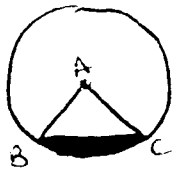
(22) x=?
(23) y=?



(24) x=?
(25) h=?
(26) y=?
(27) z=?

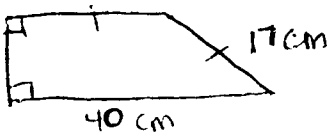


(28) A_{SR}=?

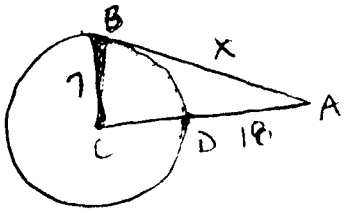


ΔABC is equilateral with lengths of 12 cm.

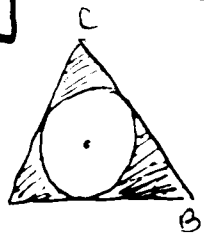
(29) A=?



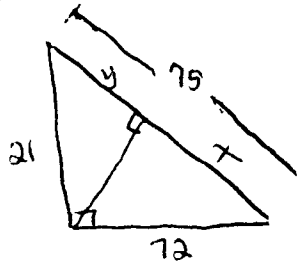
(30)



(35) ΔABC is equilateral
A_{SR}=? if
AB=64 cm
use $\pi = 3.14$
use $\sqrt{3} = 1.73$
(round to the nearest square cm)

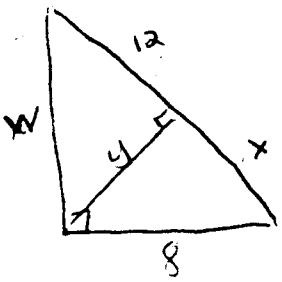


(40) x=?
(41) y=?
(42) z=?



*Geometric mean!

(43) w=?
(44) x=?
(45) y=?



* geometric mean!

$\frac{\text{hyp}_1}{\text{altitude}} = \frac{\text{altitude}}{\text{hyp}_2}$

$\frac{\text{entire hypotenuse}}{\text{leg}} = \frac{\text{leg}}{\text{adj segment of hypotenuse}}$