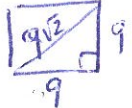
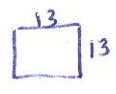
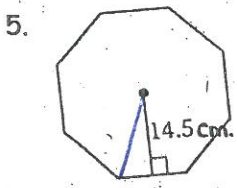


- Describe what the area of a shape is in your own words: Space inside a shape (1)
- The units on your answer when calculating area should always be squared (1)
- The area of a square with sides of 13 cm is 169 cm<sup>2</sup> (1)
- The area of a square with a diagonal of  $9\sqrt{2}$  inches is 81 in<sup>2</sup> (2)



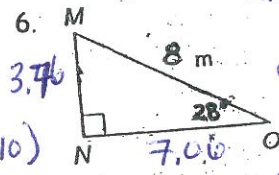
#5-10, Calculate the area of each shape. (all 3 pts each)



$\tan 22.5 = \frac{x}{14.5}$

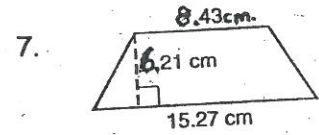
$x = 6.01$

$\frac{1}{2}(14.5)(96.10)$   
696.71 cm<sup>2</sup>

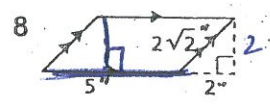


$\sin 28 = \frac{MN}{8}$   
 $\cos 28 = \frac{NO}{8}$

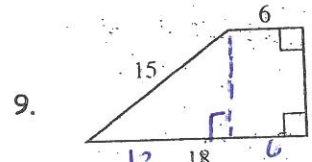
$\frac{1}{2}(3.46)(7.06)$   
12.28 m<sup>2</sup>



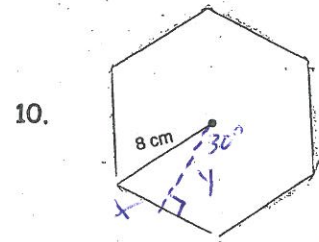
$\frac{1}{2}(15.27 + 8.43)(6.21)$   
73.59 cm<sup>2</sup>



$b \cdot h$   
 $5 \cdot 2$   
10 in<sup>2</sup>



$15^2 = 12^2 + h^2$   
 $h = 9$   
 $\frac{1}{2}(12 + 18)9$   
108 u<sup>2</sup>

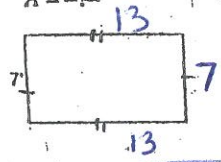


$3 \sin 30 = \frac{x}{8}$   
 $x = 4$   
 $8^2 = 4^2 + y^2$   
 $y = 6.93$

$\frac{1}{2}(7)(6.93) = 24.06$   
166.28 cm<sup>2</sup>

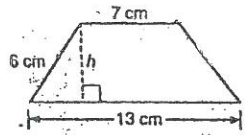
#11-17, Find the missing part

11. The perimeter is 40 ft.  
A = ?



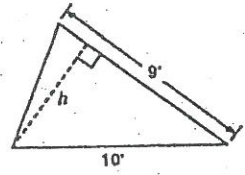
$13 \cdot 7$   
91 ft<sup>2</sup>

12. A = 50 cm<sup>2</sup>  
h = ?



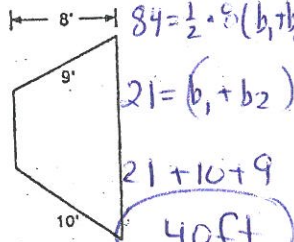
$50 = \frac{1}{2}(13 + 7)h$   
 $50 = 10 \cdot h$   
5 cm = h

13. A = 31.5 sq. ft.  
h = ?



$31.5 = \frac{1}{2}(9)h$   
7 ft = h

14. A = 84 sq. ft.  
The perimeter is ?

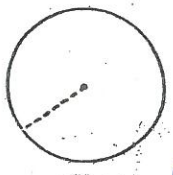


$84 = \frac{1}{2} \cdot 9 \cdot (b_1 + b_2)$   
 $21 = (b_1 + b_2)$   
 $21 + 10 + 9$   
40 ft

15. A rhombus has an area of 26.986 cm<sup>2</sup>. If one diagonal measures 11.6 cm, find the length of the other diagonal.

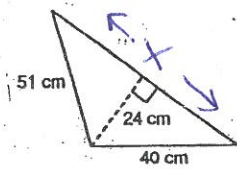
$26.986 = \frac{1}{2}(11.6)(d_2)$   
4.65 cm

16. A = 576π cm<sup>2</sup>  
The circumference is ?



$576\pi = \pi r^2$   
 $576 = r^2$   
 $24 = r$   
 $C = 2\pi r$   
C = 48π or 150.80 cm

17. If the area is 924 cm<sup>2</sup>, what is the perimeter?

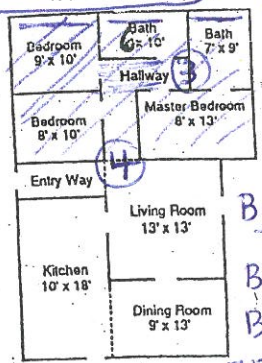


$924 = \frac{1}{2}(24)(x)$   
77 = x

$77 + 51 + 40 = P$   
P = 168 cm

4 pts

8. Aunt Teak is ready to have wall-to-wall carpeting installed. The carpeting she has selected costs \$14 per square foot, the padding is \$3 per square foot, and the installation is \$3 per square foot. What will it cost Aunt Teak to carpet the three bedrooms and hallway shown in the diagram on the right? (Ignore the thickness of the walls.)



27 across  
\$20/ft<sup>2</sup>

By Parts:  
Bed<sub>1</sub> = 90  
Bed<sub>2</sub> = 80  
Bed<sub>3</sub> = 104  
hall = 30 + 32 = 62  
= 336 ft<sup>2</sup>

entire area - baths  
 $(27 \cdot 17) - (baths)$   
 $459 - 60 - 63$   
area = 336 ft<sup>2</sup>

$336 \cdot 20 =$   
\$6,720