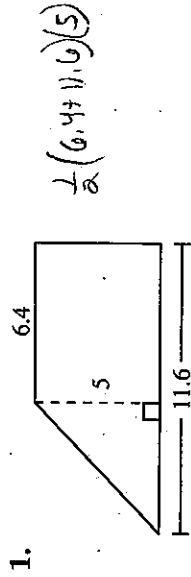


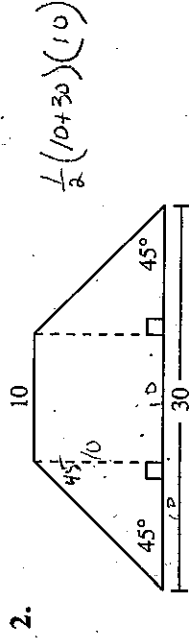
Areas of Trapezoids

For use after Section 11-3

Find the area of each trapezoid.



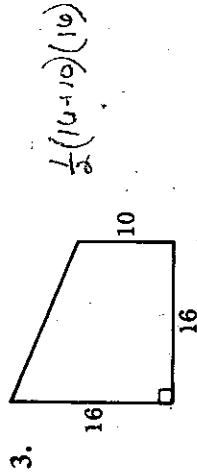
$$\frac{1}{2}(6.4 + 11.6)(5)$$



$$\frac{1}{2}(10 + 30)(10)$$

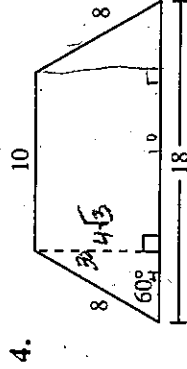
$$A = 45$$

$$A = 200$$



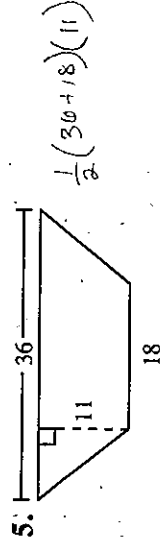
$$\frac{1}{2}(10 + 16)(16)$$

$$\frac{1}{2}(18 + 10)(4\sqrt{5})$$



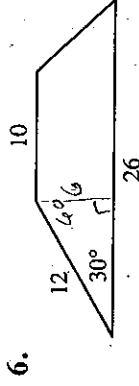
$$A = 208$$

$$A = 90\sqrt{3}$$



$$\frac{1}{2}(36 + 18)(11)$$

$$\frac{1}{2}(20 + 10)(6)$$



$$A = 297$$

$$A = 108$$

7. A trapezoid has area 112 and median 16. What is its height? 7

$$1/2 = 14h$$

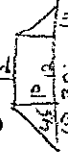
8. A trapezoid has area 72 and height 9. How long is its median? 8

$$72 = 9M$$

9. An isosceles trapezoid has base angles of 45° and bases of lengths 12 and 32.

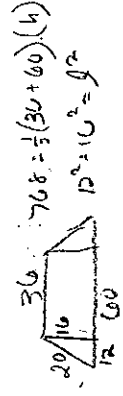
$$\frac{1}{2}(12 + 32)(10)$$

Find its area. 220



10. Find the height and perimeter of an isosceles trapezoid

with bases 36 and 60 and area 768. $h = 16$, $p = 136$



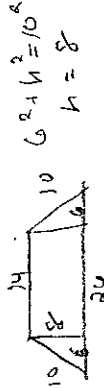
$$768 = \frac{1}{2}(36 + 60)h$$

$$16^2 + 16^2 = 6^2$$

11. Find the area and the length of the median of an isosceles

trapezoid with legs 10 and bases 14 and 26. $A = 160$,

length of median = 20 $\frac{1}{2}(14 + 26)$



$$6^2 + h^2 = 10^2$$

$$h = 8$$

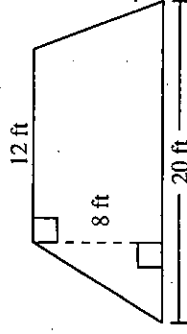
12. Find the height of a trapezoid with bases 9 and 6 and area 120.

$$120 = \frac{1}{2}(9 + 6)h$$

13. The area of a trapezoid is 144 km^2 . The shorter base is 15 km

and the height is 6 km. Find the longer base. 33

14. Find the area of the flower garden shown. 128



Ex. 14

$$144 = \frac{1}{2}(15 + X)6$$

$$144 = 3(15 + X)$$