

Core Concept

Rectangle	Triangle	Parallelogram	Trapezoid	Circle
$A = b \cdot h$ or $A = l \cdot w$	$A = \frac{1}{2} \cdot b \cdot h$ $A = \frac{b \cdot h}{2}$	$A = b \cdot h$ Add up all sides	$A = \frac{1}{2} h (b_1 + b_2)$	$A = \pi r^2$ $C = \pi d$ $C = 2\pi r$
$P = 2b + 2h$	$P = a + b + c$			

1) Find the area:

$$A = \frac{1}{2} h (b_1 + b_2)$$

$$= \frac{1}{2} (6) (9 + 13)$$

$$= 3 (22)$$

$$A = 66 \text{ sq ft}$$

2) Find the area:

$$A = b \cdot h$$

$$= 12 \cdot 7$$

$$A = 84 \text{ cm}^2$$

3) Find the area:

$$A = \frac{1}{2} h (b_1 + b_2)$$

$$= \frac{1}{2} (8) (15 + 11)$$

$$= 4 (26)$$

$$= 104 \text{ sq in}$$

4) Find the shaded area. LISZ is a rhombus.

parallelogram

$$A = \frac{1}{2} h (b_1 + b_2)$$

$$= \frac{1}{2} (5) (13 + 13)$$

$$= \frac{1}{2} (5) (26)$$

$$= 65$$

5) Find the shaded area. SHBR is square.

plan:

A square $11 \cdot 11 = 121$

$$- (A_{\Delta} + A_{\Delta})$$

$$- (\frac{1}{2} b h + \frac{1}{2} b h)$$

$$- (\frac{1}{2} (7 \cdot 7) + \frac{1}{2} (5 \cdot 5))$$

$$= 121 - 37 = 84$$

6) Find the area enclosed by the two trapezoids.

$$A_{\text{total}} = \frac{1}{2} h (b_1 + b_2)$$

$$= \frac{1}{2} (2) (7 + 3)$$

$$= 1 (10)$$

$$A_{\text{total}} = 10 \text{ in}^2$$

$$A_{\text{left}} = \frac{1}{2} h (b_1 + b_2)$$

$$= \frac{1}{2} (3) (5 + 7)$$

$$= \frac{1}{2} (3) (12)$$

$$= 18 \text{ in}^2$$

total Area = $18 + 10 = 28 \text{ in}^2$

7) Find the area and perimeter. Semicircle and a square.

$$A_{\text{square}} = b \cdot h = 10 \cdot 10 = 100$$

$$A_{\text{semicircle}} = \frac{\pi r^2}{2} = \frac{\pi (5)^2}{2} = \frac{25\pi}{2}$$

total Area = $100 + \frac{25\pi}{2}$

$$A \approx 139.27$$

$A^* = 18 \text{ in}^2$