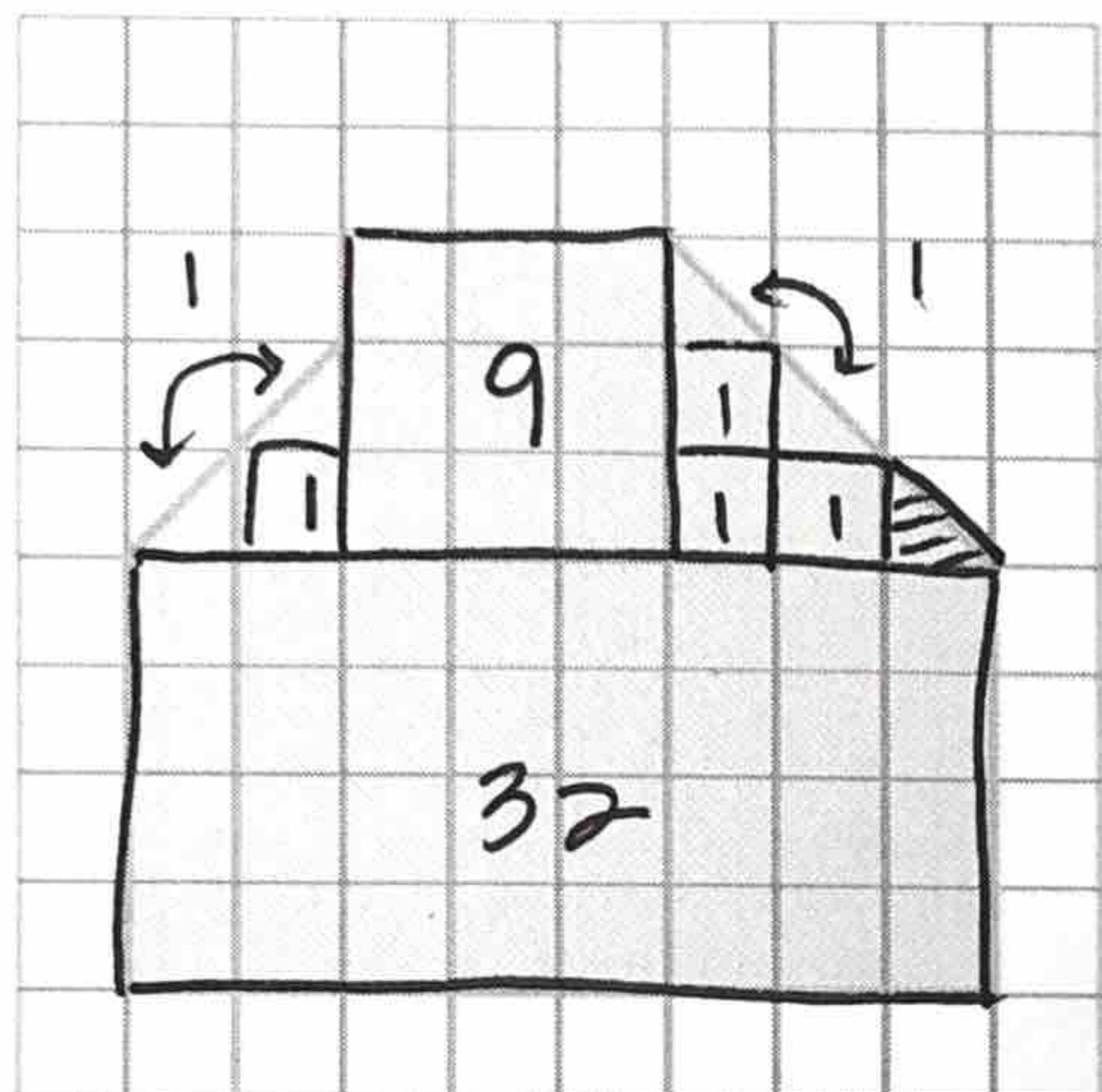


8.4 Areas of Composite Figures

To find areas of composite figures, separate it into figures with areas you know how to find. Find the sum of the areas of all those figures.

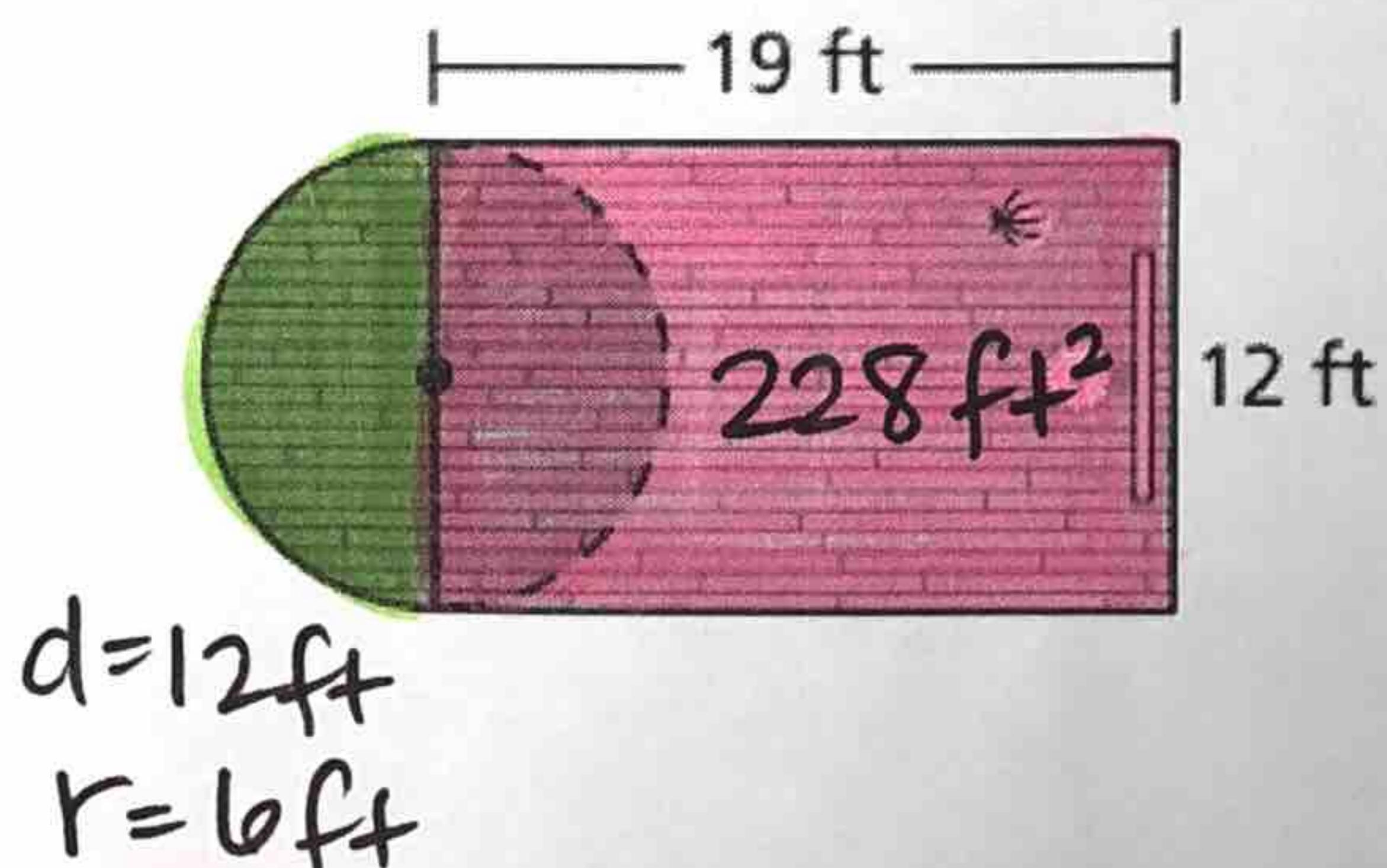
Ex: Find the area of the composite figure.



$$A = 32 + 9 + 4 + 0.5$$

$$A = 47.5 \text{ units}^2$$

Ex: Find the area of the basketball key shown.



$$\begin{aligned} A_{\text{rect}} &= b \cdot h \\ &= (19)(12) \\ &= 228 \text{ ft}^2 \end{aligned}$$

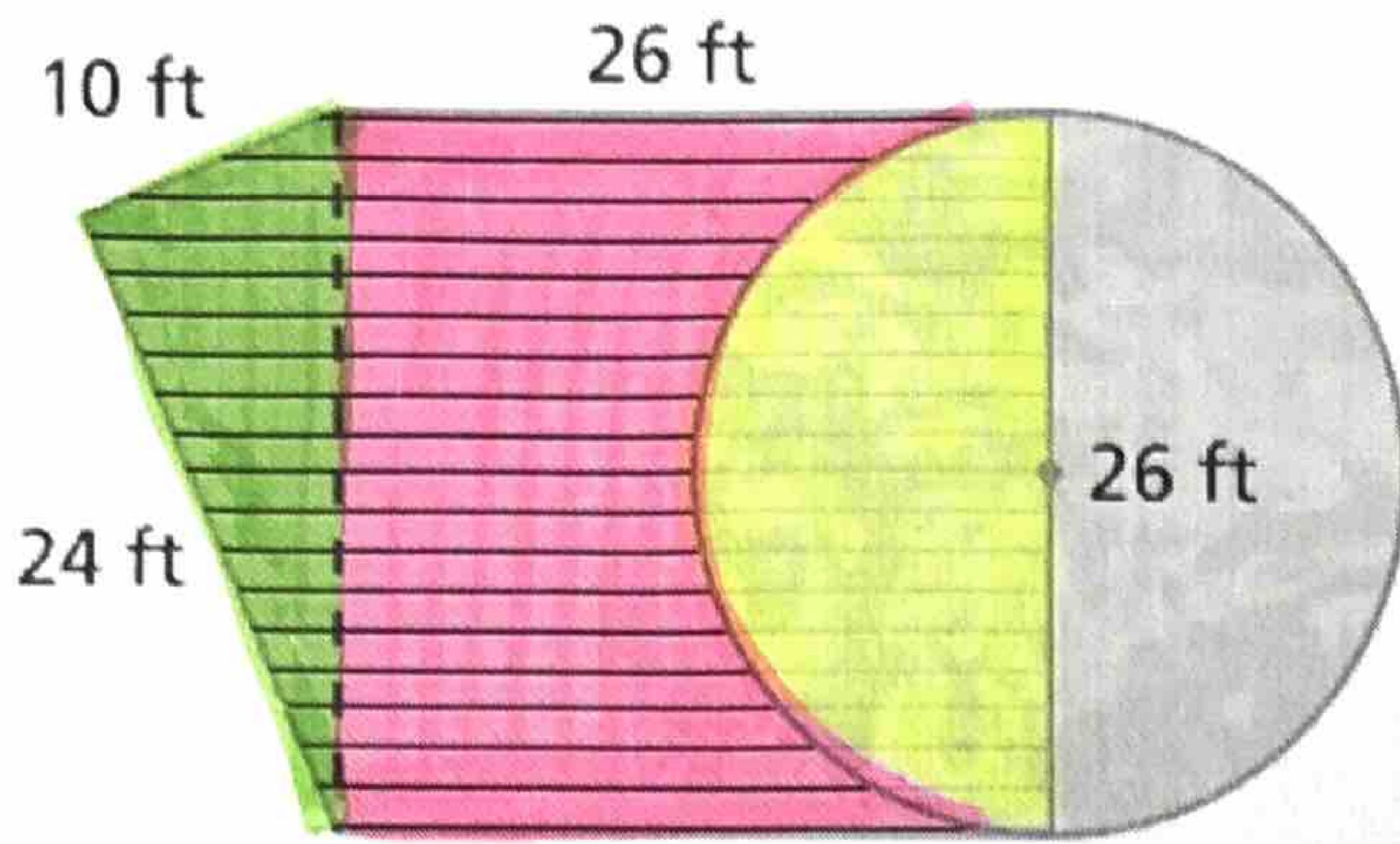
$$\begin{aligned} A_{\text{circle}} &= \pi r^2 \\ &= \pi (6)^2 \\ &= 36\pi \end{aligned}$$

$$\begin{aligned} A_{\text{total}} &= \frac{1}{2}(36\pi) \\ &= 18\pi \\ &\approx 56.5 \text{ ft}^2 \end{aligned}$$

$$A_{\text{total}} = 228 + 56.5$$

$$A \approx 284.5 \text{ ft}^2$$

Ex: Find the area of just the pool deck (excluding the pool).



$$A_{\triangle} = \frac{1}{2}bh$$

$$= \frac{1}{2}(10)(24)$$

$$= 120 \text{ ft}^2$$

$$A_{\square} = b \cdot h$$

$$= (26)(24)$$

$$= 676 \text{ ft}^2$$

$$A_{\circ} = \pi r^2$$

$$= \pi(13)^2$$

$$= 169\pi$$

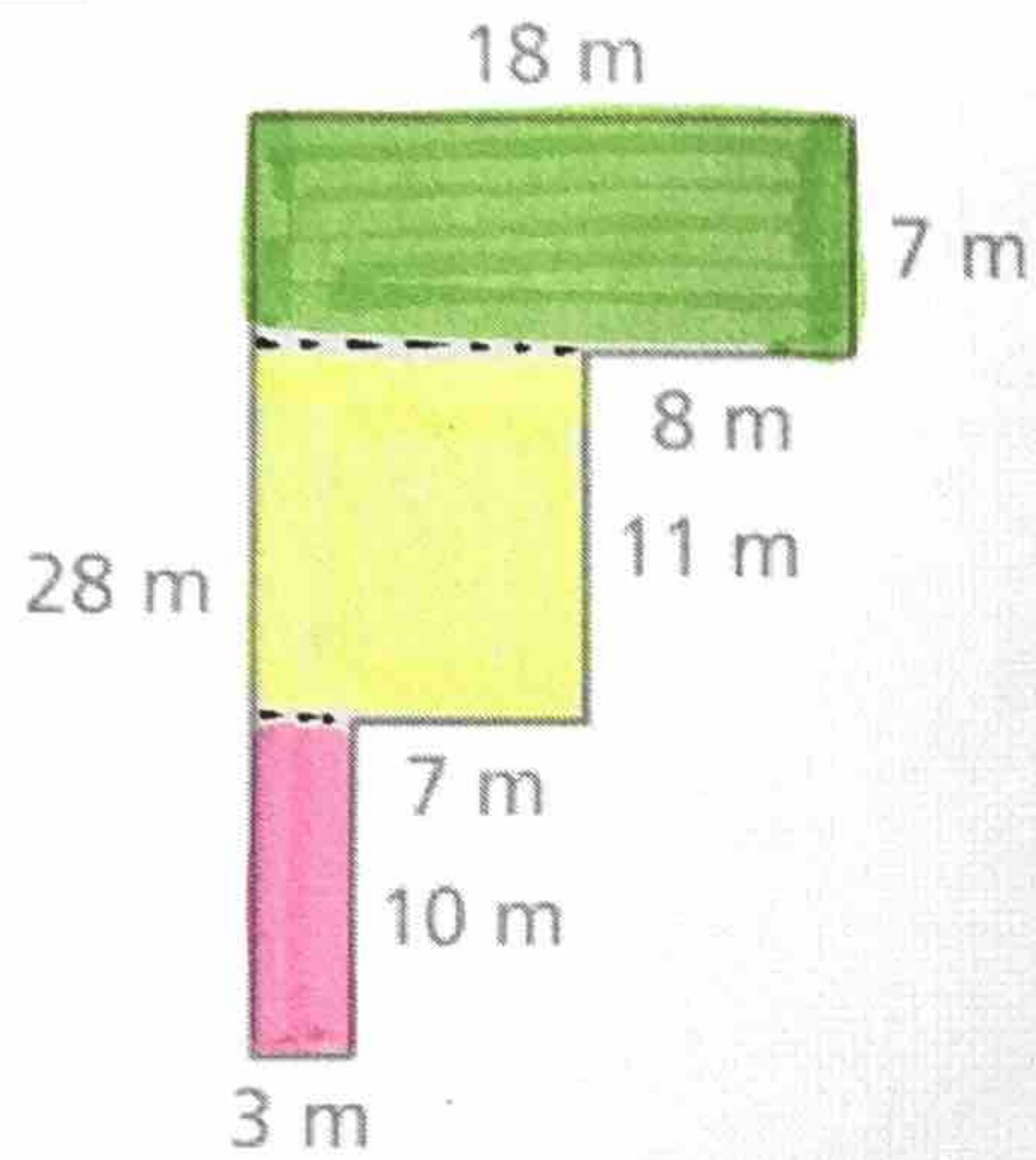
$$A_{\odot} = \frac{1}{2}(169\pi)$$

$$\approx 265.5 \text{ ft}^2$$

$$A_{\square} \approx 676 - 265.5$$

$$\approx 410.5 \text{ ft}^2$$

Ex: Find the area of the figure.



$$A_{\square} = b \cdot h$$

$$= (3)(10)$$

$$= 30 \text{ m}^2$$

$$A_{\square} = b \cdot h$$

$$= (10)(11)$$

$$= 110 \text{ m}^2$$

$$A_{\square} = b \cdot h$$

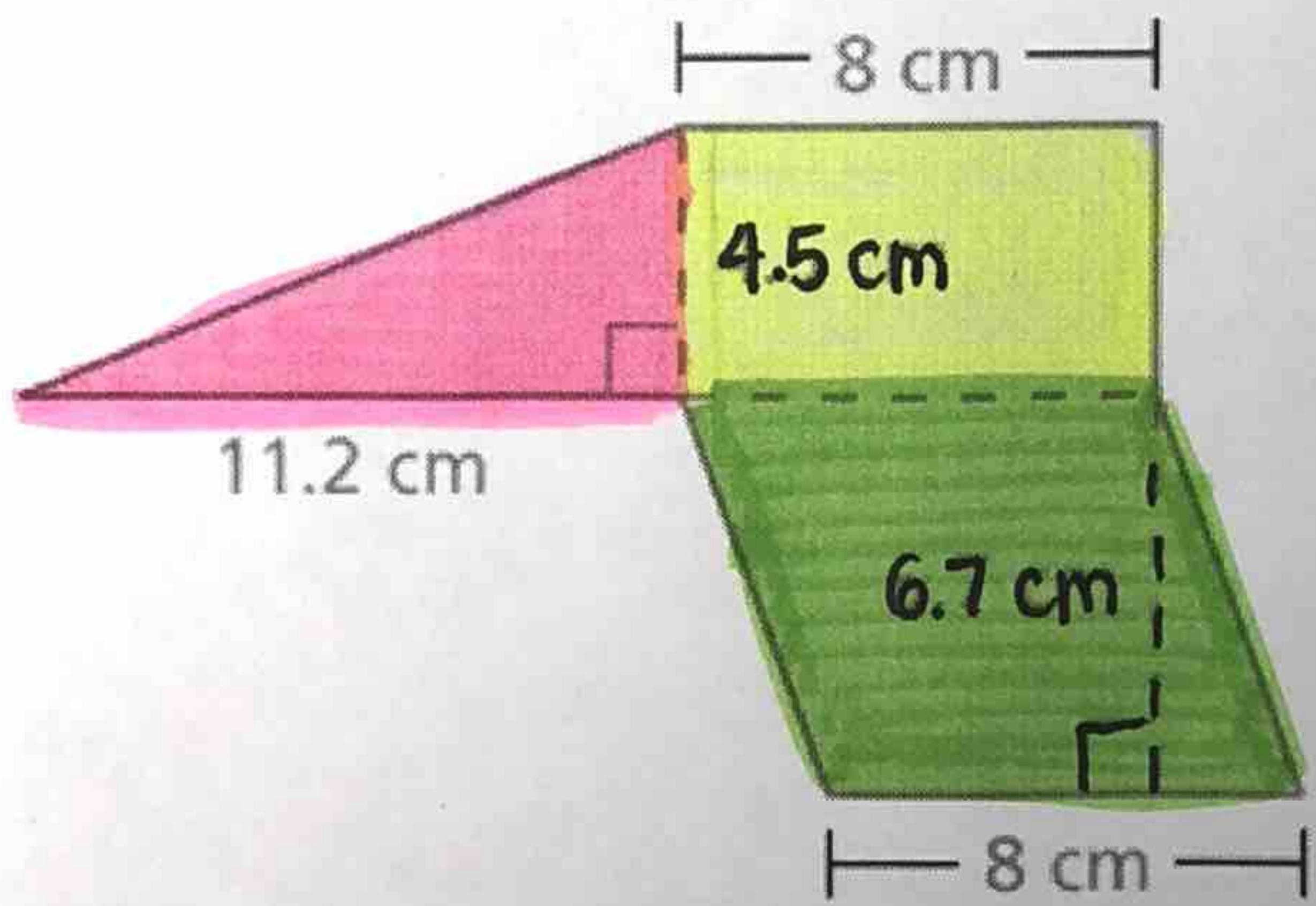
$$= (18)(7)$$

$$= 126 \text{ m}^2$$

$$A_{\text{fig}} = 30 + 110 + 126$$

$$A = 266 \text{ m}^2$$

Ex: Find the area of the figure.



$$A_{\square} = b \cdot h$$

$$= (8)(6.7)$$

$$= 53.6 \text{ cm}^2$$

$$A_{\square} = b \cdot h$$

$$= (8)(4.5)$$

$$= 36 \text{ cm}^2$$

$$A_{\triangle} = \frac{1}{2}bh$$

$$= \frac{1}{2}(11.2)(4.5)$$

$$= 25.2$$

$$A_{\text{fig}} = 53.6 + 36 + 25.2$$

$$A = 114.8 \text{ cm}^2$$