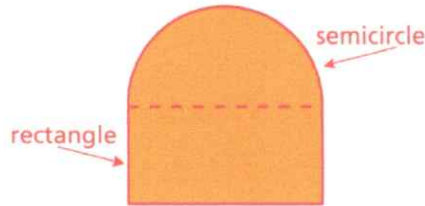
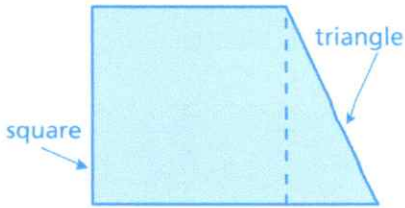


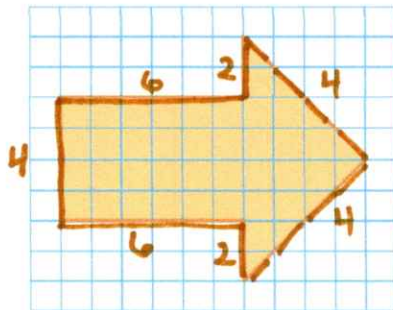
8.2 Perimeter of Composite Figures p.326

A composite figure is made up of triangles, squares, rectangles, semicircles and other two-dimensional figures. Here are 2 examples:



To find the perimeter of a composite figure, find the distance around the figure.

When estimating a perimeter using grid paper, estimate the diagonal length to be 1.5 units.

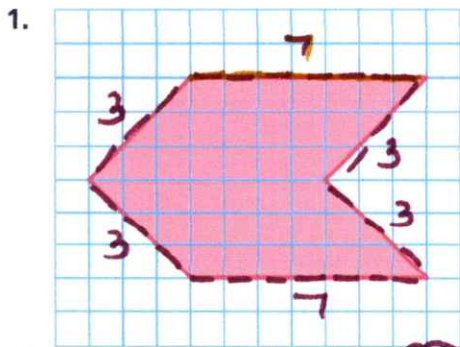


$$4 + 4 = 8(1.5) = 12$$

$$2 + 6 + 4 + 6 + 2 = 20$$

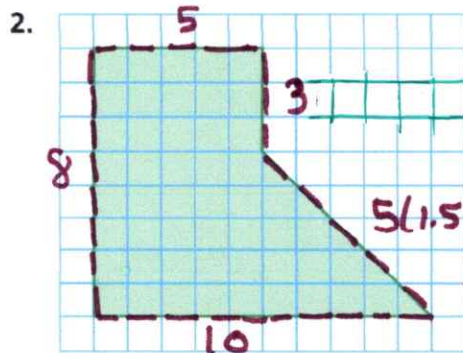
**32 units**

Try these on your own:



$$3 + 3 + 3 + 3 = 12(1.5) = 18$$

$$7 + 7 = 14 \quad 14 + 18 = 32 \text{ units}$$

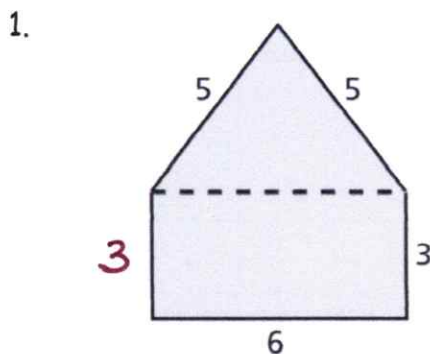


$$10 + 8 + 5 + 3 + 7.5 =$$

**33.5 units**

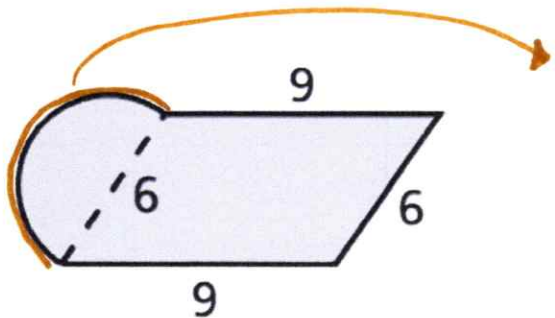
$$5(1.5) = 7.5$$

For the rest of the examples, find the actual perimeter of each composite figure.



$$5 + 5 + 3 + 6 + 3 = 22 \text{ units}$$

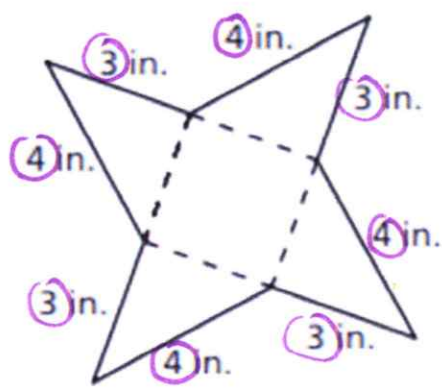
2.



$$\frac{3.14(6)}{2} = 9.42 + 9 + 9 + 6 =$$

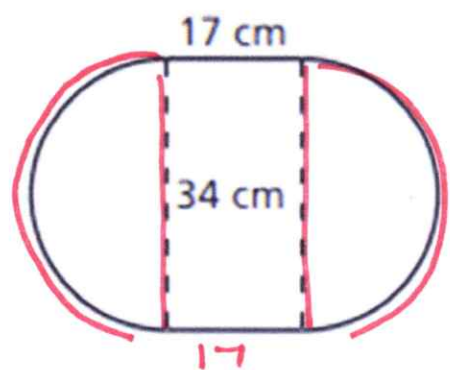
$$\boxed{33.42 \text{ units}}$$

3.



$$16 + 12 = \boxed{28 \text{ in}}$$

4.



Two semi-circles form 1 circle

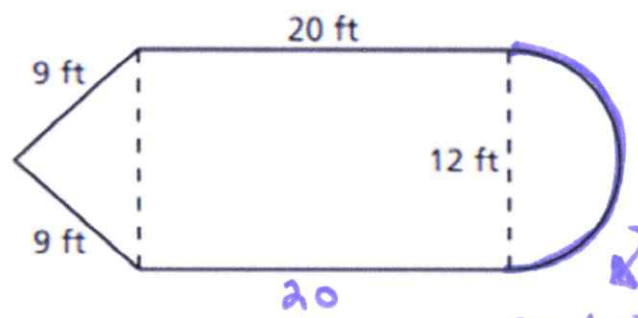


$$3.14(34) = 106.76 + 34$$

$$\boxed{140.76 \text{ cm}}$$

5.

A school has a garden in the shape of a pencil. A fence is to be built around the garden. The fence costs \$2.75 per foot. How much will it cost to install the fence?



$$18.84 + 18 + 40 = 76.84 (2.75) =$$

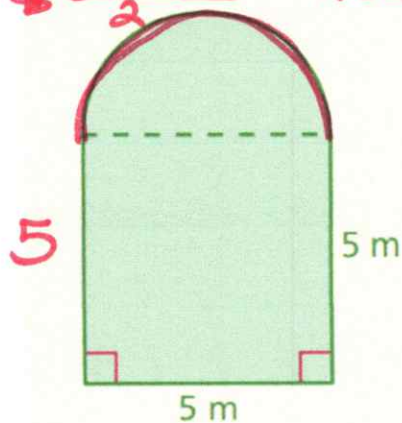
$$\boxed{\$211.31}$$

$$\frac{3.14(12)}{2} =$$

$$18.84$$

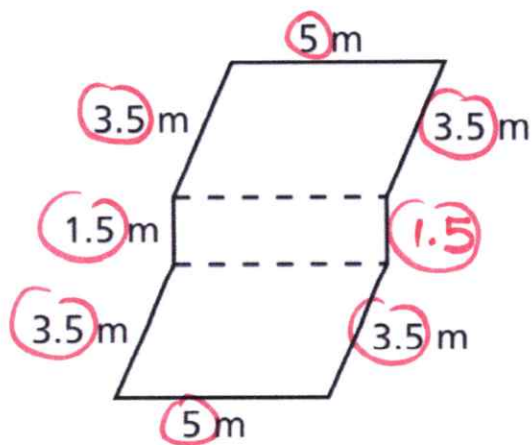
6.

semi-circle  
 $\frac{3.14(5)}{2} = 7.85$



$7.85 + 15 = 22.85\text{m}$

7.

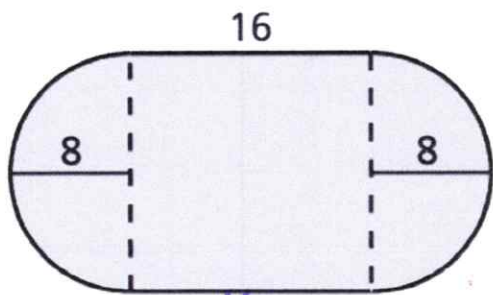


$5 + 3.5 + 1.5 + 3.5 + 5 + 3.5 + 1.5 + 3.5 = 27\text{m}$

or

$10 + 7 + 7 + 3 = 27\text{m}$

8.



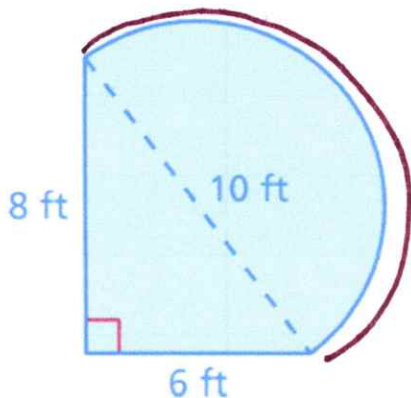
two semi-circles form 1 circle



8 is the radius  
 16 is the diameter

$3.14(16) = 50.24 + 16 + 16 = 82.24\text{ units}$

9.



$\frac{3.14(10)}{2} = 15.7 + 8 + 6 = 29.7\text{ ft}$