

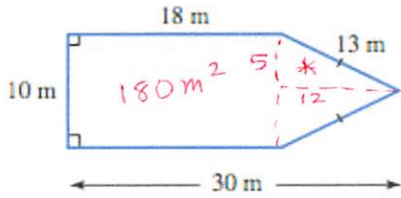
9-3 Area and Perimeter of Composite Figures

Name _____
Date _____ Period _____

Notes and Examples

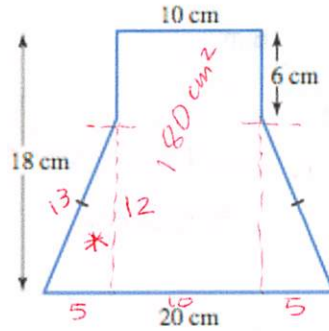
Find the area and perimeter of each composite figure.

1. $P = 10 + 18 + 13 + 13 + 18 = 72 \text{ m}$
 $A = 180 + 60 = 240 \text{ m}^2$

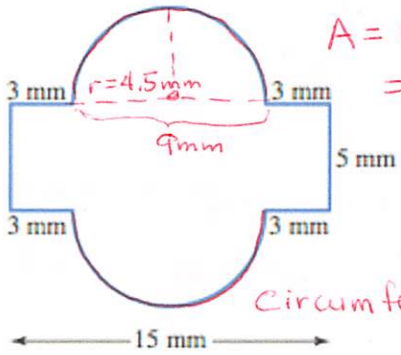


* 5-12-13 Pythagorean Triple

2. $P = 20 + 13 + 6 + 10 + 6 + 13 = 68 \text{ cm}$
 $A = 180 + 60 = 240 \text{ cm}^2$

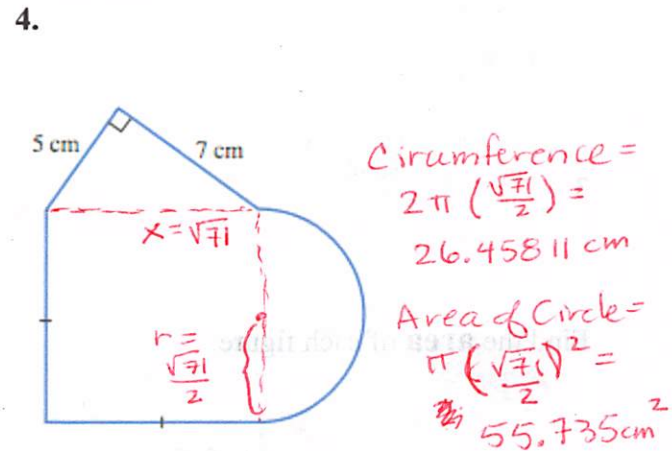


3. $P = 3 + 5 + 3 + 9\pi + 3 + 5 + 3 = 50.26 \text{ mm}$



$A = 63.585 + 75 = 138.585 \text{ mm}^2$

Circumference = $2\pi(4.5) = 9\pi \text{ mm}$
 Area of Circle = $\pi(4.5)^2 = 20.25\pi \text{ mm}^2$



4. Pythagorean Theorem:

$5^2 + 7^2 = x^2$
 $25 + 49 = x^2$
 $x^2 = 74 \quad x = 8.42615$

$P = \sqrt{71} + \sqrt{71} + 5 + 7 + \frac{1}{2}(\sqrt{71}\pi)$
 $= 8.42615 + 12 + 13.229055 = 33.655 \text{ cm}$



Pythagorean Theorem:
 $12^2 + 14^2 = x^2$
 $144 + 196 = x^2$
 $x^2 = 340 \quad x = 18.439$

$A = \text{triangle} + \text{square} + \frac{1}{2}\text{circle}$
 $= \frac{1}{2}(5 \times 7) + (\sqrt{71})^2 + \frac{1}{2}\left(\frac{71\pi}{4}\right)$
 $= 17.5 + 71 + 27.8675 = 62.3675 \text{ cm}^2$

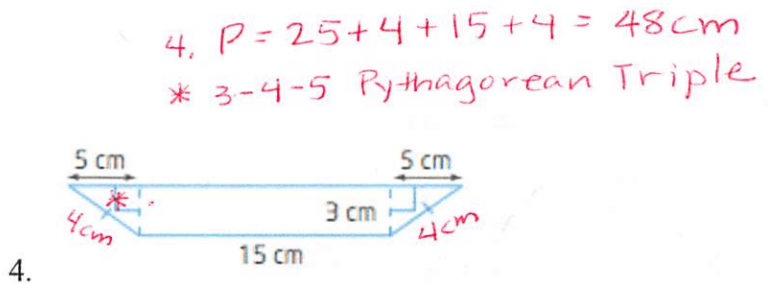
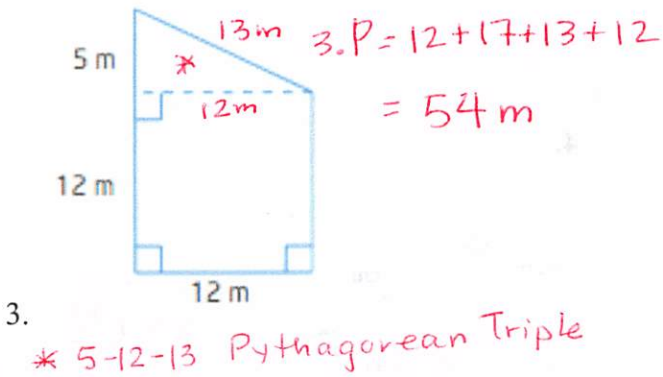
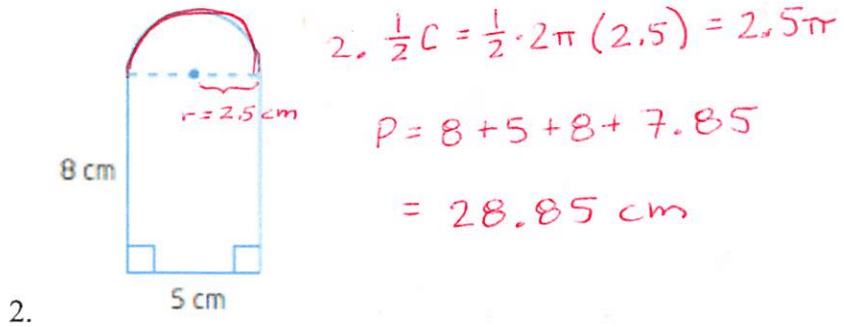
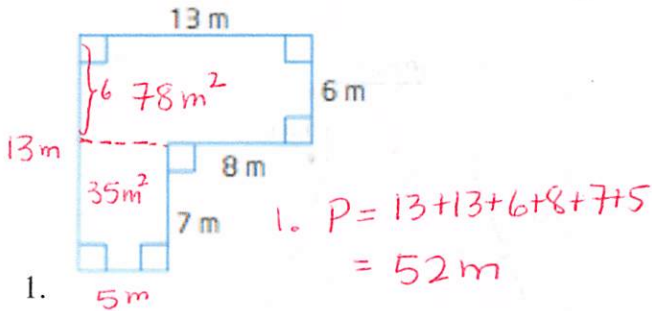
5. $P = 32 + 14 + 10\pi + \sqrt{340} = 95.839 \text{ mm}$

$A = \text{trapezoid} + \frac{1}{2}\text{Circle} = 364 + 314 = 678 \text{ mm}^2$

9-3 Area and Perimeter of Composite Figures

Name _____
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Find the **perimeter** of each figure.



Find the **area** of each figure.

