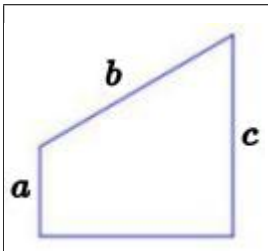
Nombre:	Fecha:	

1. (1p) Enuncia el Teorema de Pitágoras.

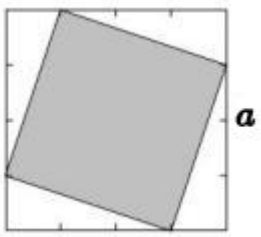
2. (1,75p) Find the area and perimeter of an isosceles triangle, its two equal sides are twenty cm each, and the other side is twenty-four cm long.

3. (1,75p) Find the area and perimeter of a rhombus with one diagonal sixteen cm long, and its equal sides are twelve cm.

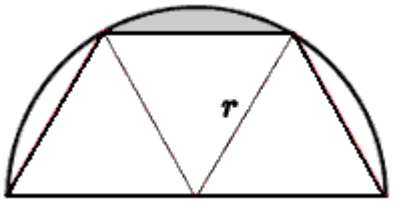
4. (1,75p) Calculate the area and perimeter of the following figure: $a = 2\ m,\ \ b = 5\ m,\ \ c = 5\ m$



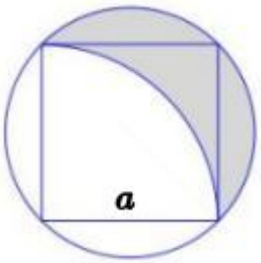
5. (1,75p) Find the area and perimeter of the shaded (*sombreada*) part of the figure: $a = 16\ cm$



6. (1p) Find the area and perimeter of the shaded part of the figure: $r = 8\ cm$

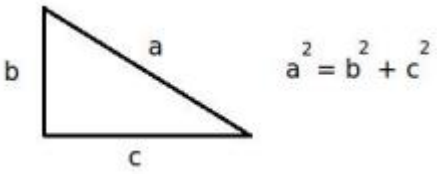


7. (1p) Find the area and perimeter of the shaded part of the figure: $a = 10\ m$



SOLUCIONES Total: 10+0,5 puntos

1. (1p) En un triángulo rectángulo, el cuadrado de la hipotenusa es igual a la suma de los cuadrados de los catetos.



2. (1,75p) $p = 64\ cm \qquad h = \sqrt{256}\ cm \quad \Rightarrow \quad A = 12\sqrt{256}\ cm^2$

(+0,1p) $h = 16\ cm \quad \Rightarrow \quad A = 192\ cm^2$

3. (1,75p) $p = 48\ cm \qquad d = 2\sqrt{80}\ cm \quad \Rightarrow \quad A = 16\sqrt{80}\ cm^2$

(+0,1p) $d = 8\sqrt{5}\ cm \quad \Rightarrow \quad A = 64\sqrt{5}\ cm^2$

4. (1,75p) $l = 4\,m \quad \Rightarrow \quad p = 16\ m \qquad A = 14\ m^2$

5. (1,75p) $l = \sqrt{160} \quad \Rightarrow \quad p = 4\sqrt{160}\ cm \qquad A = 160\ cm^2$

(+0,1p) $l = 4\sqrt{10}\ cm \quad \Rightarrow \quad p = 16\sqrt{10}\ cm$

6. (1p) $p = \dfrac{2\pi r}{6} + l \qquad A = \dfrac{1}{6}\left(\pi r^2 - \dfrac{p\,a}{2}\right)$

$p = \dfrac{8\pi}{3} + 8\ cm \qquad a = \sqrt{48}\ cm \quad \Rightarrow \quad A = \dfrac{32\pi}{3} - 4\sqrt{48}\ cm^2$

(+0,1p) $a = 4\sqrt{3}\ cm \quad \Rightarrow \quad A = \dfrac{32\pi}{3} - 16\sqrt{3}\ cm^2$

7. (1p) $p = \dfrac{2\pi r}{2} + \dfrac{2\pi a}{4} = \pi\left(r + \dfrac{a}{2}\right) \qquad A = \pi r^2 - \dfrac{\pi a^2}{4} - \dfrac{1}{2}\left(\pi r^2 - a^2\right) = \text{¡¡}\dfrac{a^2}{2}\text{!!}$

$r = \sqrt{50}\ m \quad \Rightarrow \quad p = \pi\left(\sqrt{50} + 5\right)\ m \qquad A = 50\ m^2$

(+0,1p) $r = 5\sqrt{2}\ m \quad \Rightarrow \quad p = 5\pi\left(\sqrt{2} + 1\right)\ m$