Lesson # 33 ~ Area of a Disc

Area formula discovery?

- The formula for calculating the area of a disc from the radius is:

$$A = \pi r^2$$

Find the area, if the radius is 4cm. ***** don't forget BEDMAS

$A = \pi r^2$ (2nd)

$A = \pi 4^2$ Exponent First

$A = \pi 16$ $A = 50.27 cm^2$

Find the area, if the diameter is 7.2cm.

$R = 3.6$

$A = \pi r^2$

$A = \pi 3.6^2$

$A = 40.72 cm^2$

In order to find the radius from the area do ……..

$A = \pi r^2$

$\frac{A}{\pi} = r^2$

$\sqrt{\frac{A}{\pi}} = r$

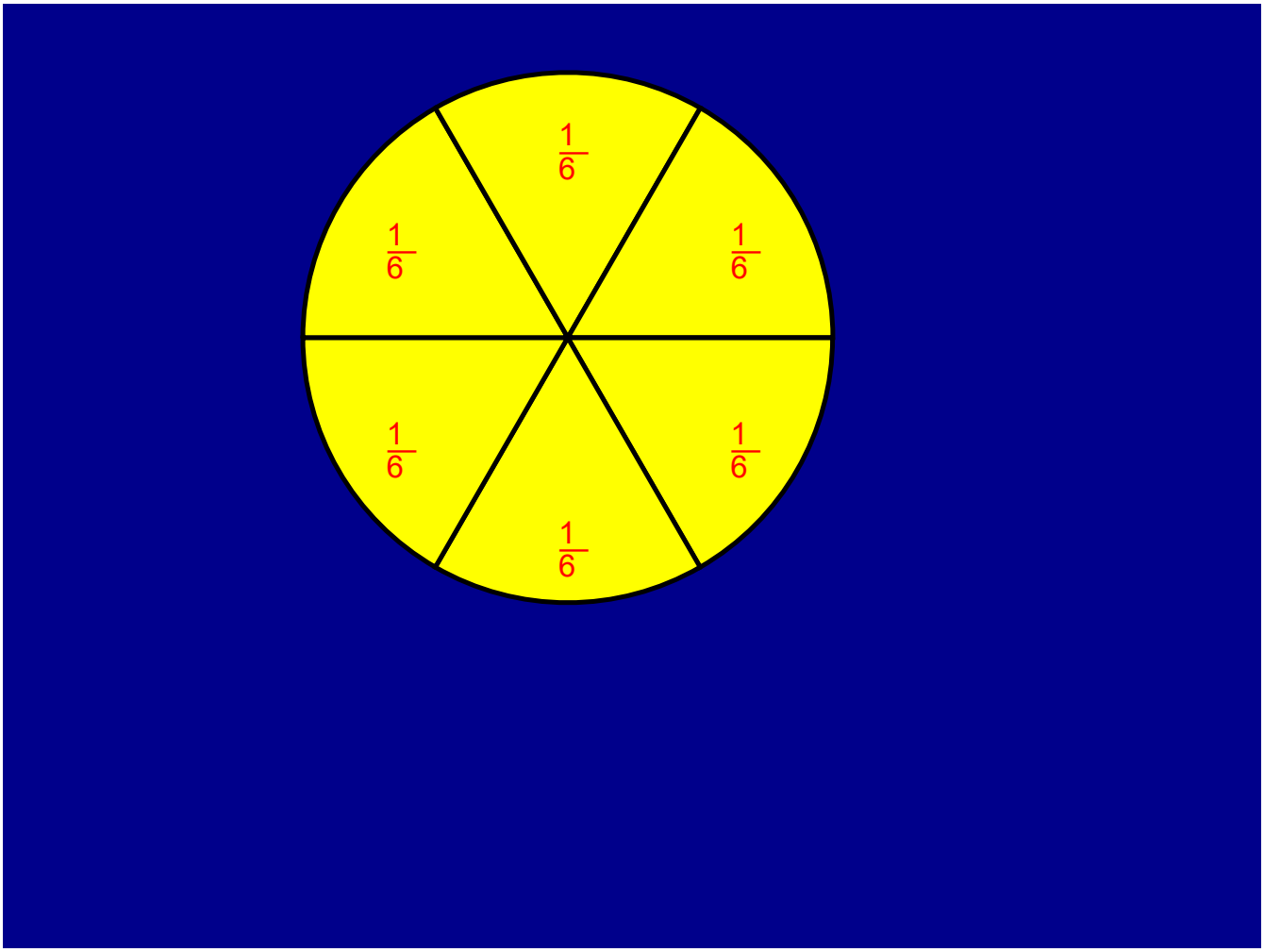
Find the radius if the area is 113.04cm².

$r = \sqrt{\frac{A}{\pi}}$

$r = \sqrt{\frac{113.04}{\pi}}$ Square Root Last

$r = \sqrt{36}$

$r = 6$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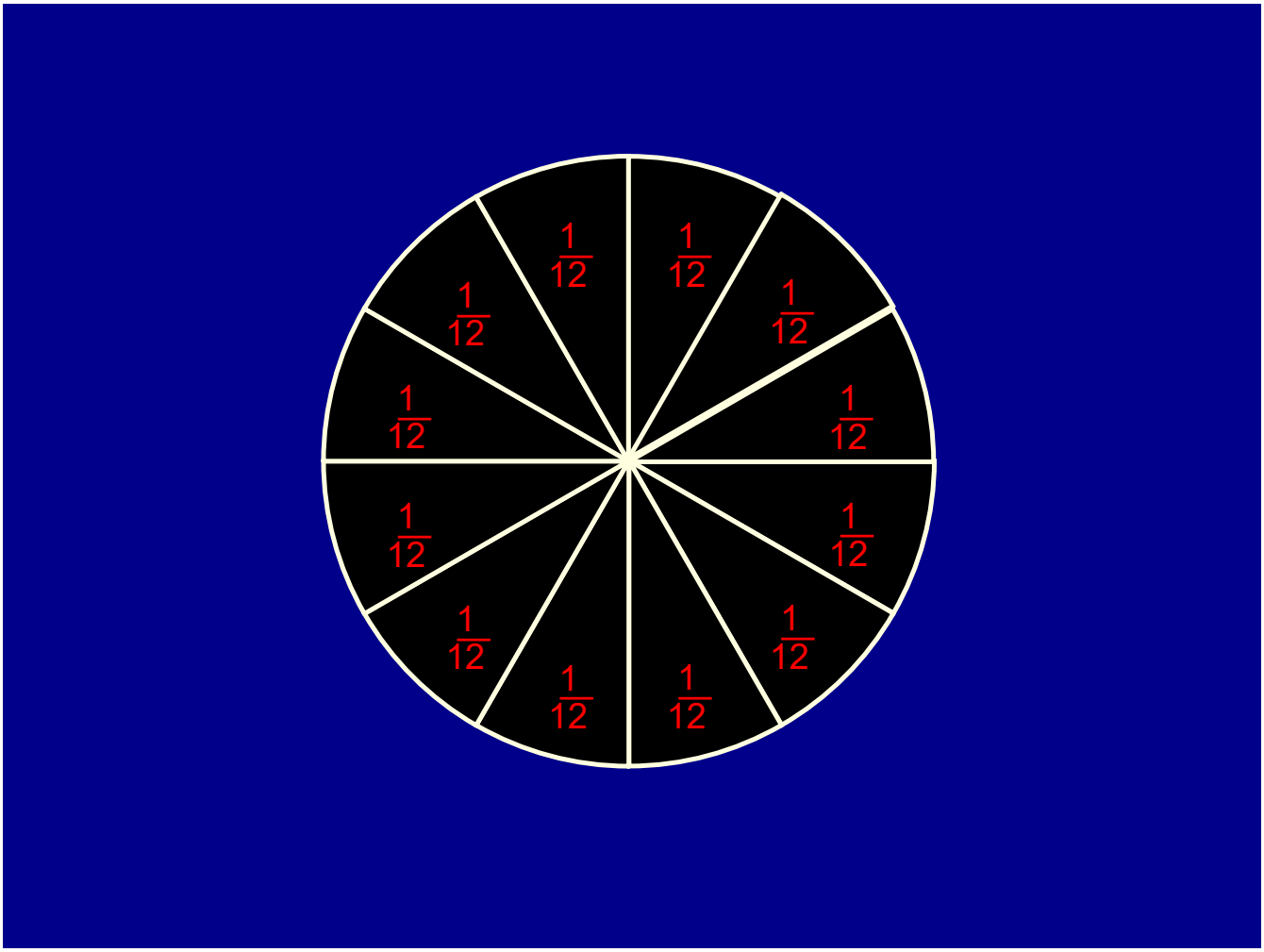
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WORKSHEET 18

PASSPORT 8

Ripples in the Water!

1. Use your compasses to **construct** a circle with:

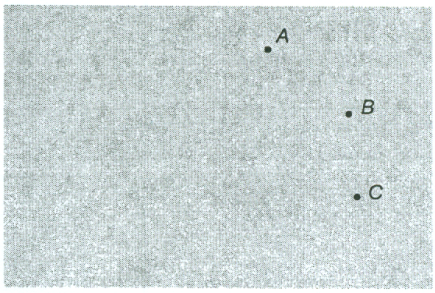
   a) a radius of 2 cm; ***b)*** a diameter of 5 cm;

   c) a circumference of approximately 6.28 cm; ***d)*** an area of approximately 28 cm^2.

2. Three cottages, *A*,*B* and *C*, are built at a summer camp.

   a) **Find** the exact location where a lamppost must be installed to give the same intensity of light on all three cottages.

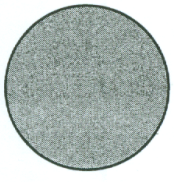
   b) **Give** the geometric statement used to solve this problem.



3. Use your ruler to find the necessary measurements and **calculate** (showing the steps of your work):

   a) the perimeter of the circle at right;

   b) the area of the disc.



Attachments

Area of Circle.asf