

Mathletes

Sudoku -

① 1st 9 primes

2, 3, 5, 7, 11, 13, 17, 19, 23

② 1st 9 binary #s

$$2^0 = 1$$

$$2^5 = 32$$

$$2^1 = 2$$

$$2^6 = 64$$

$$2^2 = 4$$

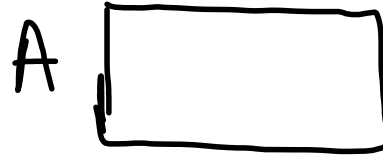
$$2^7 = 128$$

$$2^3 = 8$$

$$2^8 = 256$$

$$2^4 = 16$$

Rectangle



Perimeter: $(2 * A) + (2 * B)$

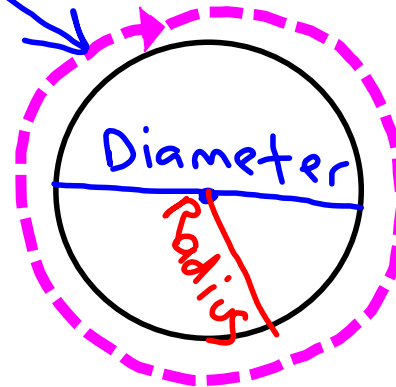
Area: $A * B$

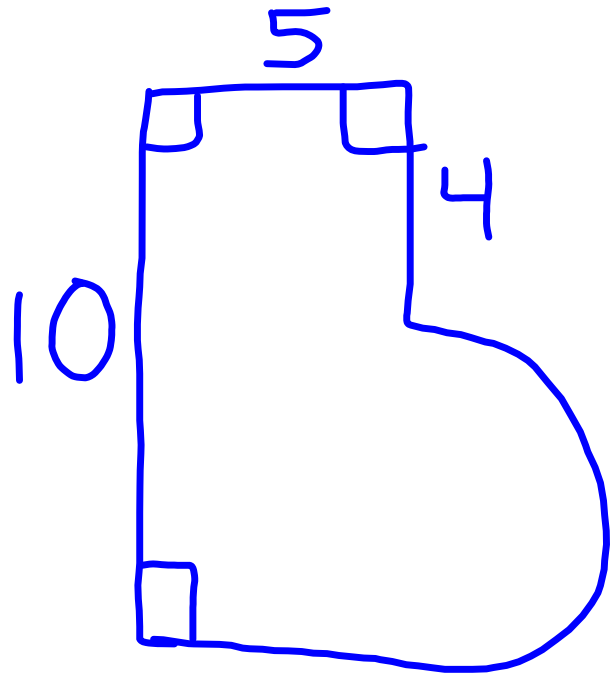
Circle

Circumference: πD ($\pi * \text{diameter}$)

Area: $\pi * R$

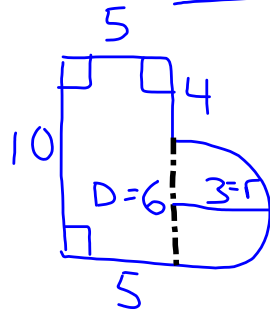
π is approx.
 $3\frac{1}{7}$ or 3.14





What is the
perimeter and
area of the
figure?

Answer



Perimeter:

$$10 + 5 + 4 + 5$$

+ $\frac{1}{2}$ of circumference

$$C = \pi * D$$

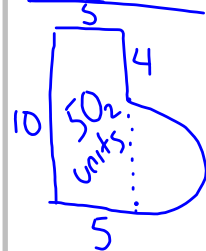
$$3\frac{1}{7} * 6 = 18\frac{6}{7}$$

$$24 + \text{half of } 18\frac{6}{7}$$

$$24 + 9\frac{6}{14}$$

$$24 + 9\frac{3}{7} = 33\frac{3}{7} \text{ units}$$

Area



$$10 \times 5 = 50 \text{ square units}$$

plus

$\frac{1}{2}$ area of circle $\frac{\pi r^2}{2}$

$$\frac{3\frac{1}{7} * 3^2}{2} = \frac{3\frac{1}{7} * 9}{2}$$

$$\frac{27\frac{9}{7}}{2} = \frac{28\frac{2}{7}}{2} = 14\frac{1}{7}$$

$$50 + 14\frac{1}{7} = 64\frac{1}{7} \text{ units}^2$$