Vocab

Power / Expression

$5(-2)^3$

Exponent — tells how many bases to multiply

$5(-2)(-2)(-2) = -40$

evaluated answer "Value"

Coefficient — Infront. Multiplies to what it touches

-2 is base it repeats.

Word Problems

Replace the Variable w/ a number

Whenever you have a question where a formula is Provided, you must substitute values into the formula, then use BEDMAS to solve for the unknown.
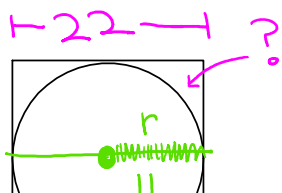
distance AROUND outer edges.

1) What is the Perimeter of stop sign if one side length is 14cm?

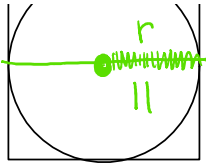octagon   8 equal sides $P = 8(s) = 8(14) = 112cm$

substitute 14 in for side

2) If you have a square room that's length is 22m, and you buy a round rug that must touch each side, what part of your floor is not covered?

├─22─┤ ?

r

$A_{Room} = S \times S$ or S^2

$A_R = 22^2 = 484 m^2$

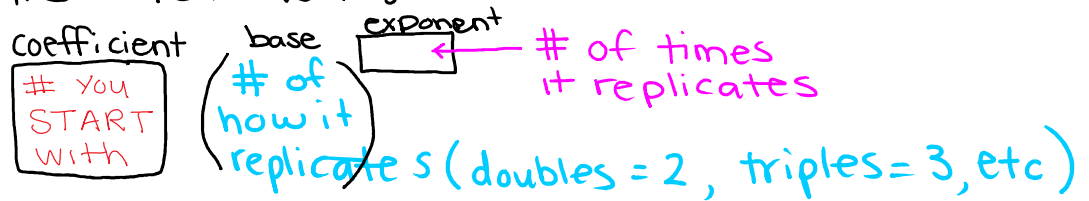$A_{..} = 3.14 r^2$

$A_R = 22 - 40.1m$

$A_{rug} = 3.14 r^2$

$A_{rug} = 3.14(11)^2 = 379.94$

$A_{uncovered} = A_{room} - A_{rug}$

$484 - 379.94$

$A = 104.06 m^2$

3. Bacteria questions are always solved using this format:

coefficient — # You START with

base — # of how it replicates

exponent — # of times it replicates

replicates (doubles = 2, triples = 3, etc)

a) You have 75 bacteria that triple each hour. How many after 2 hours? 5.5 hrs?

$75(3)^2$

$75(9) = 675$

$75(3)^{5.5}$

$75(420.9) = 31567.5$

b) You have 120 bacteria that double every 30 minutes. How many after:

2½ hours? Replicated 5 times

$5 \rightarrow 2 \times 2 \times 2 \times 2 \times 2$

(Bacteria)(double)^{Rate}

$120(2)$

$120(32) = 3840$

$120 \times 2 \times 2 \times 2 \times 2 \times 2 =$

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