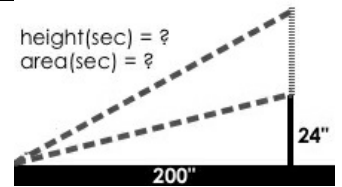


Top Down / Bottom Up

A retractable flag pole starts out 24 inches tall, and grows taller at a rate of 0.6in/sec. An elastic is anchored 200 inches from the base and attached to the top of the pole, forming a right triangle. Using a top-down or bottom-up strategy, define functions that compute the *height* of the pole and the *area* of the triangle after a given number of seconds.



Directions : Define your first function (*height* or *area*) here.

Contract and Purpose Statement

Every contract has three parts...

;
_____ : _____ -> _____
function name *domain* *range*

;

what does the function do?

Examples

Write some examples, then circle and label what changes...

(EXAMPLE (_____) _____)
function name *input(s)* *what the function produces*

(EXAMPLE (_____) _____)
function name *input(s)* *what the function produces*

Definition

Write the definition, giving variable names to all your input values...

(define (_____) _____)
function name *variable(s)*

what the function does with those variable(s)

Directions : Define your second function (*height* or *area*) here.

Contract and Purpose Statement

Every contract has three parts...

;
_____ : _____ -> _____
function name *domain* *range*

;

what does the function do?

Examples

Write some examples, then circle and label what changes...

(EXAMPLE (_____) _____)
function name *input(s)* *what the function produces*

(EXAMPLE (_____) _____)
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Definition

Write the definition, giving variable names to all your input values...

(define (_____) _____)
function name *variable(s)*

what the function does with those variable(s)