Evidencia de conocimiento:
Algoritmo para El Cálculo de Áreas y Volúmenes GA2-240201528-AA4-EV01.

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Análisis y desarrollo de software
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Link de acceso:

https://areasyvolumenes.w3spaces.com

Algoritmo utilizado:

```ts
import { Component, inject, OnInit } from '@angular/core';
import { FormBuilder, ReactiveFormsModule, Validators } from '@angular/forms';
import { RouterOutlet } from '@angular/router';
import { initFlowbite } from 'flowbite';

@Component({
  selector: 'app-root',
  standalone: true,
  imports: [RouterOutlet,ReactiveFormsModule],
  templateUrl: './app.component.html',
  styleUrl: './app.component.css'
})
export class AppComponent implements OnInit{
  title = 'areas_volumenes';
  private formBuilder = inject(FormBuilder);
  formTriangulo = this.formBuilder.nonNullable.group({
    altura:['',[Validators.required, Validators.pattern('^[0-9]*$'),Validators.min(1)]],
    base:['',[Validators.required, Validators.pattern('^[0-9]*$'),Validators.min(1)]]
  });
  formPrisma = this.formBuilder.nonNullable.group({
    altura:['',[Validators.required, Validators.pattern('^[0-9]*$'),Validators.min(1)]],
    ancho:['',[Validators.required, Validators.pattern('^[0-9]*$'),Validators.min(1)]],
    largo:['',[Validators.required, Validators.pattern('^[0-9]*$'),Validators.min(1)]]
  });
  viewMessageT = false;
  viewMessageP = false;
  resultT = '';
  resultP = '';
  ngOnInit(): void {
    initFlowbite();
  }
  calcularTriangulo(){
    if(this.formTriangulo.valid){
      this.viewMessageT = false;
      let base = !!this.formTriangulo.value.base ? +this.formTriangulo.value.base : 0;
      let altura = !!this.formTriangulo.value.altura ? +this.formTriangulo.value.altura : 0;
      this.resultT= 'El Area Del Triangulo es de: '+ ((base*altura)/2) + 'mt2';
      this.formTriangulo.reset();
    }
    else{
      this.viewMessageT = true;
      this.resultT ='';
    }
  }
  calcularPrisma(){
    if(this.formPrisma.valid){
      this.viewMessageP = false;
      let ancho = !!this.formPrisma.value.ancho ? +this.formPrisma.value.ancho : 0;
      let largo = !!this.formPrisma.value.largo ? +this.formPrisma.value.largo : 0;
      let altura = !!this.formPrisma.value.altura ? +this.formPrisma.value.altura : 0;
      this.resultP= 'El Volumen de un Prisma Rectangular es de: '+ ((largo*ancho*altura)/2) + 'mt2';
      this.formPrisma.reset();
    }
    else{
      this.viewMessageP = true;
      this.resultP ='';
    }
  }
}

```

```html
<h1 class="text-3xl text-white text-center">
  Realizado Por Andres Felipe Muñoz Acevedo Ficha 370321
</h1>
<h5 class="text-2xl text-white text-center mt-8">
  Calcular Area Del Triangulo (Metros)
</h5>
<div class="md:flex gap-3 mt-4 p-4">
  <form class="md:w-3/4" [formGroup]="formTriangulo"
  (submit)="calcularTriangulo()">
    <div class="mb-5">
      <label for="email" class="block mb-2 text-sm font-medium
      text-gray-900 dark:text-white">
        Ingrese la Altura
      </label>
      <input type="text" formControlName="altura"
      class="bg-gray-50 border border-gray-300
       text-gray-900 text-sm rounded-lg focus:ring-blue-500
       focus:border-blue-500 block w-full p-2.5 dark:bg-gray-700
        dark:border-gray-600 dark:placeholder-gray-400
        dark:text-white dark:focus:ring-blue-500 dark:focus:border-blue-500"
         placeholder="145" required />
      @if (formTriangulo.get('altura')?.invalid &&
      formTriangulo.get('altura')?.touched) {
        <span class="text-red-500">
          Debe ingresar numeros mayor o igual a 1.
        </span>
      }
    </div>
    <div class="mb-5">
      <label for=""
      class="block mb-2 text-sm font-medium text-gray-900
      dark:text-white">
        Ingrese la Base
      </label>
      <input type="text" placeholder="34" formControlName="base"
      class="bg-gray-50 border border-gray-300 text-gray-900 text-sm
      rounded-lg focus:ring-blue-500 focus:border-blue-500 block w-full
       p-2.5 dark:bg-gray-700 dark:border-gray-600 dark:placeholder-gray-400
       dark:text-white dark:focus:ring-blue-500 dark:focus:border-blue-500" required />
      @if (formTriangulo.get('base')?.invalid &&
      formTriangulo.get('base')?.touched) {
        <span class="text-red-500">
          Debe ingresar numeros mayor o igual a 1.
        </span>
      }
    </div>
    <button type="submit"
    class="text-white bg-blue-700 hover:bg-blue-800 focus:ring-4 focus:outline-none
    focus:ring-blue-300 font-medium rounded-lg text-sm w-full sm:w-auto px-5 py-2.5
    text-center dark:bg-blue-600 dark:hover:bg-blue-700 dark:focus:ring-blue-800">
    Calcular</button>
    @if (viewMessageT) {
      <span class="text-red-500">Campos Vacios.</span>
    }
  </form>
  <figure class="grid place-content-center md:block mt-3 md:mt-0">
    <img src="./triangulo.png" alt="" class="rounded-xl min-w-56">
  </figure>
</div>
<h5 class="text-2xl text-center text-white mb-8">{{resultT}} </h5>
<hr>
```

```
<h5 class="text-2xl text-white text-center mt-8">
  Calcular El Volumen De un Prisma Rectangular (Metros)
</h5>
<div class="md:flex gap-3 mt-4 p-4">
  <form class="md:w-3/4" [formGroup]="formPrisma" (submit)="calcularPrisma()">
    <div class="mb-5">
      <label for="" class="block mb-2 text-sm font-medium text-gray-900 dark:text-white">
        Ingrese la Altura
      </label>
      <input type="text" formControlName="altura" class="bg-gray-50 border border-gray-300
      text-gray-900 text-sm rounded-lg focus:ring-blue-500 focus:border-blue-500 block
      w-full p-2.5 dark:bg-gray-700 dark:border-gray-600 dark:placeholder-gray-400
      dark:text-white dark:focus:ring-blue-500 dark:focus:border-blue-500"
      placeholder="12" required />
    </div>
    <div class="mb-5">
      <label for="" class="block mb-2 text-sm font-medium text-gray-900 dark:text-white">
        Ingrese el Ancho
      </label>
      <input type="text" placeholder="34" formControlName="ancho"
      class="bg-gray-50 border border-gray-300 text-gray-900 text-sm rounded-lg
      focus:ring-blue-500 focus:border-blue-500 block w-full p-2.5 dark:bg-gray-700
      dark:border-gray-600 dark:placeholder-gray-400 dark:text-white
      dark:focus:ring-blue-500 dark:focus:border-blue-500" required />
    </div>
    <div class="mb-5">
      <label for="" class="block mb-2 text-sm font-medium text-gray-900 dark:text-white">
        Ingrese el Largo
      </label>
      <input type="text" placeholder="347" formControlName="largo"
      class="bg-gray-50 border border-gray-300 text-gray-900 text-sm rounded-lg
      focus:ring-blue-500 focus:border-blue-500 block w-full p-2.5 dark:bg-gray-700
      dark:border-gray-600 dark:placeholder-gray-400 dark:text-white
      dark:focus:ring-blue-500 dark:focus:border-blue-500" required />
    </div>
    <button type="submit" class="text-white bg-blue-700 hover:bg-blue-800
    focus:ring-4 focus:outline-none focus:ring-blue-300 font-medium rounded-lg text-sm
    w-full sm:w-auto px-5 py-2.5 text-center dark:bg-blue-600 dark:hover:bg-blue-700
    dark:focus:ring-blue-800">Calcular</button>
  </form>
  <figure class="grid place-content-center md:block mt-3 md:mt-0">
    <img src="./prisma.jpeg" alt="" class="rounded-xl min-w-56">
  </figure>
</div>
<h5 class="text-2xl text-center text-white mb-8">{{resultP}} </h5>

<router-outlet />

```

Justificación:

Tengo dos años de experiencia como desarrollador web es por eso que elegí angular para desarrollar esta evidencia

Nota: cuando ingrese al link click en continuar