



# Calculate the Area of a Triangle :

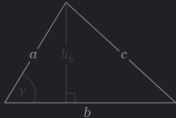
If you know the base and height of a triangle, you can find the area using the formula:

$$\text{area} = (\text{base} * \text{height}) / 2$$

Triangle  
Solve for area

$A = 7.5$

$b$  Base   
 $h_b$  Height



Solution  
 $A = \frac{h_b b}{2} = \frac{3 \cdot 5}{2} = 7.5$

```
tempFile.js > ...
1  const baseValue = 5;
2  const heightValue = 3;
3
4  // calculate the area
5  const areaValue = (baseValue * heightValue) / 2;
6
7  console.log(
8    `The area of the triangle is ${areaValue}`
9  );
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL wsl

```
> node tempFile
The area of the triangle is 7.5
```

If you know all the sides of a triangle, you can find the area using Heron's' formula.

If  $a$  ,  $b$  and  $c$  are the three sides of a triangle, then

$$s = (a+b+c)/2 \quad \text{area} = \sqrt{s(s-a) (s-b) (s-c))}$$

```

JS tempFile.js > [?] side3
1  // JavaScript program to find the area of a triangle
2
3  const side1 = 3
4  const side2 = 4
5  const side3 = 5
6
7  // calculate the semi-perimeter
8  const totalSide = (side1 + side2 + side3) / 2;
9
10 //calculate the area
11 ✓ const areaValue = Math.sqrt(
12   |   totalSide * (totalSide - side1) * (totalSide - side2) * (totalSide - side3)
13   | );
14
15 ✓ console.log(
16   | `The area of the triangle is ${areaValue}`
17   | );

```

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```

> node tempFile
The area of the triangle is 6

```

🔍 ➡ /mnt/d/1-MyFolder/Js

**Note:** If a triangle cannot be formed from the given sides, the program will not run correctly.