Important Concave Regular Hexagon Formulas PDF

Formulas
Examples
with Units

List of 20
Important Concave Regular Hexagon Formulas

1) Area of Concave Regular Hexagon Formulas

1.1) Area of Concave Regular Hexagon Formula

Evaluate Formula

Formula

$$A = \sqrt{3} \cdot S^2$$

Example with Units

$$27.7128\,\text{m}^2 = \sqrt{3} \cdot 4\,\text{m}^2$$

1.2) Area of Concave Regular Hexagon given Breadth Formula

Evaluate Formula

Formula

$$A = \frac{b^2}{\sqrt{3}}$$

Example with Units

$$28.2902\,\text{m}^2 = \frac{7\,\text{m}^2}{\sqrt{3}}$$

1.3) Area of Concave Regular Hexagon given Height Formula

Evaluate Formula

Formula

$$A = \frac{4 \cdot \sqrt{3}}{9} \cdot h^2$$

Example with Units

$$27.7128\,\text{m}^2 = \frac{4 \cdot \sqrt{3}}{9} \cdot 6\,\text{m}^2$$

1.4) Area of Concave Regular Hexagon given Perimeter Formula

Evaluate Formula

Formula

$$A = \frac{\sqrt{3}}{36} \cdot P^2$$

Example with Units

$$30.0703\,\text{m}^2 = \frac{\sqrt{3}}{36} \cdot 25\,\text{m}^2$$

2) Breadth of Concave Regular Hexagon Formulas

2.1) Breadth of Concave Regular Hexagon Formula

Evaluate Formula

Formula

$$b = \sqrt{3} \cdot S$$

Example with Units

$$6.9282\,\text{m} = \sqrt{3} \cdot 4\,\text{m}$$

2.2) Breadth of Concave Regular Hexagon given Area Formula

Evaluate Formula

Formula

$$b = \sqrt{\sqrt{3} \cdot A}$$

Example with Units

$$7.2084\,\text{m} = \sqrt{\sqrt{3} \cdot 30\,\text{m}^2}$$

2.3) Breadth of Concave Regular Hexagon given Height Formula

Evaluate Formula

Formula

$$b = \frac{2}{\sqrt{3}} \cdot h$$

Example with Units

$$6.9282\,\text{m} = \frac{2}{\sqrt{3}} \cdot 6\,\text{m}$$

2.4) Breadth of Concave Regular Hexagon given Perimeter Formula

Evaluate Formula

Formula

$$b = \frac{P}{2 \cdot \sqrt{3}}$$

Example with Units

$$7.2169\,\text{m} = \frac{25\,\text{m}}{2 \cdot \sqrt{3}}$$

3) Height of Concave Regular Hexagon Formulas

3.1) Height of Concave Regular Hexagon Formula

Evaluate Formula

Formula

$$h = \frac{3}{2} \cdot S$$

Example with Units

$$6\,\text{m} = \frac{3}{2} \cdot 4\,\text{m}$$

3.2) Height of Concave Regular Hexagon given Area Formula

Evaluate Formula

Formula

$$h = \sqrt{\frac{3 \cdot \sqrt{3}}{4} \cdot A}$$

Example with Units

$$6.2427\,\text{m} = \sqrt{\frac{3 \cdot \sqrt{3}}{4} \cdot 30\,\text{m}^2}$$

3.3) Height of Concave Regular Hexagon given Breadth Formula

Evaluate Formula

Formula

$$h = \frac{\sqrt{3}}{2} \cdot b$$

Example with Units

$$6.0622\,\text{m} = \frac{\sqrt{3}}{2} \cdot 7\,\text{m}$$

3.4) Height of Concave Regular Hexagon given Perimeter Formula

Evaluate Formula

Formula

$$h = \frac{P}{4}$$

Example with Units

$$6.25\,\text{m} = \frac{25\,\text{m}}{4}$$

4) Perimeter of Concave Regular Hexagon Formulas

4.1) Perimeter of Concave Regular Hexagon Formula

Evaluate Formula

Formula

$$P = 6 \cdot S$$

Example with Units

$$24\,\text{m} = 6 \cdot 4\,\text{m}$$

4.2) Perimeter of Concave Regular Hexagon given Area Formula

Evaluate Formula

Formula

$$P = \sqrt{12 \cdot \sqrt{3} \cdot A}$$

Example with Units

$$24.9707\,\text{m} = \sqrt{12 \cdot \sqrt{3} \cdot 30\,\text{m}^2}$$

4.3) Perimeter of Concave Regular Hexagon given Breadth Formula

Evaluate Formula

Formula

$$P = 2 \cdot \sqrt{3} \cdot b$$

Example with Units

$$24.2487\,\text{m} = 2 \cdot \sqrt{3} \cdot 7\,\text{m}$$

4.4) Perimeter of Concave Regular Hexagon given Height Formula

Evaluate Formula

Formula

$$P = 4 \cdot h$$

Example with Units

$$24\,\text{m} = 4 \cdot 6\,\text{m}$$

5) Side of Concave Regular Hexagon Formulas

5.1) Side of Concave Regular Hexagon given Area Formula

Evaluate Formula

Formula

$$S = \sqrt{\frac{A}{\sqrt{3}}}$$

Example with Units

$$4.1618\,\text{m} = \sqrt{\frac{30\,\text{m}^2}{\sqrt{3}}}$$

5.2) Side of Concave Regular Hexagon given Breadth Formula

Evaluate Formula

Formula

$$S = \frac{b}{\sqrt{3}}$$

Example with Units

$$4.0415\,\text{m} = \frac{7\,\text{m}}{\sqrt{3}}$$

5.3) Side of Concave Regular Hexagon given Height Formula

Evaluate Formula

Formula

$$S = \frac{2}{3} \cdot h$$

Example with Units

$$4\,\text{m} = \frac{2}{3} \cdot 6\,\text{m}$$

5.4) Side of Concave Regular Hexagon given Perimeter Formula

Evaluate Formula

Formula

$$S = \frac{P}{6}$$

Example with Units

$$4.1667\,\text{m} = \frac{25\,\text{m}}{6}$$

Variables used in list of Concave Regular Hexagon Formulas above

- **A** Area of Concave Regular Hexagon *(Square Meter)*
- **b** Breadth of Concave Regular Hexagon *(Meter)*
- **h** Height of Concave Regular Hexagon *(Meter)*
- **P** Perimeter of Concave Regular Hexagon *(Meter)*
- **S** Side Length of Concave Regular Hexagon *(Meter)*

Constants, Functions, Measurements used in list of Concave Regular Hexagon Formulas above

- Functions: **sqrt**, sqrt(Number)
  A square root function is a function that takes a non-negative number as an input and returns the square root of the given input number.
- Measurement: **Length** in Meter (m)
  Length Unit Conversion
- Measurement: **Area** in Square Meter (m²)
  Area Unit Conversion

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