Important Concave Pentagon Formulas PDF

Formulas
Examples
with Units

List of 12
Important Concave Pentagon Formulas

1) Area of Concave Pentagon Formulas

1.1) Area of Concave Pentagon Formula

Evaluate Formula

Formula

$$A = \frac{3}{4} \cdot l_{e(Square)}^2$$

Example with Units

$$12\,\text{m}^2 = \frac{3}{4} \cdot 4\,\text{m}^2$$

1.2) Area of Concave Pentagon given Leg Length of Triangle Formula

Evaluate Formula

Formula

$$A = \frac{3}{2} \cdot l_{Leg(Triangle)}^2$$

Example with Units

$$13.5\,\text{m}^2 = \frac{3}{2} \cdot 3\,\text{m}^2$$

1.3) Area of Concave Pentagon given Perimeter Formula

Evaluate Formula

Formula

$$A = \frac{3}{4 \cdot \left(3 + \sqrt{2}\right)^2} \cdot P^2$$

Example with Units

$$12.471\,\text{m}^2 = \frac{3}{4 \cdot \left(3 + \sqrt{2}\right)^2} \cdot 18\,\text{m}^2$$

2) Edge Length of Square of Concave Pentagon Formulas

2.1) Edge Length of Square of Concave Pentagon given Area Formula

Evaluate Formula

Formula

$$l_{e(Square)} = \sqrt{\frac{4}{3} \cdot A}$$

Example with Units

$$4\,\text{m} = \sqrt{\frac{4}{3} \cdot 12\,\text{m}^2}$$

2.2) Edge Length of Square of Concave Pentagon given Leg Length of Triangle Formula

Evaluate Formula

Formula

$$l_{e(Square)} = \sqrt{2} \cdot l_{Leg(Triangle)}$$

Example with Units

$$4.2426\,\text{m} = \sqrt{2} \cdot 3\,\text{m}$$

2.3) Edge Length of Square of Concave Pentagon given Perimeter Formula

Evaluate Formula

Formula

$$l_{e(Square)} = \frac{P}{3 + \sqrt{2}}$$

Example with Units

$$4.0777\,\text{m} = \frac{18\,\text{m}}{3 + \sqrt{2}}$$

3) Leg Length of Triangle of Concave Pentagon Formulas

3.1) Leg Length of Triangle of Concave Pentagon Formula

Evaluate Formula

Formula

$$l_{Leg(Triangle)} = \frac{l_{e(Square)}}{\sqrt{2}}$$

Example with Units

$$2.8284\,\text{m} = \frac{4\,\text{m}}{\sqrt{2}}$$

3.2) Leg Length of Triangle of Concave Pentagon given Area Formula

Evaluate Formula

Formula

$$l_{Leg(Triangle)} = \sqrt{\frac{2}{3} \cdot A}$$

Example with Units

$$2.8284\,\text{m} = \sqrt{\frac{2}{3} \cdot 12\,\text{m}^2}$$

3.3) Leg Length of Triangle of Concave Pentagon given Perimeter Formula

Evaluate Formula

Formula

$$l_{Leg(Triangle)} = \frac{P}{\left(3 \cdot \sqrt{2}\right) + 2}$$

Example with Units

$$2.8834\,\text{m} = \frac{18\,\text{m}}{\left(3 \cdot \sqrt{2}\right) + 2}$$

4) Perimeter of Concave Pentagon Formulas

4.1) Perimeter of Concave Pentagon Formula

Evaluate Formula

Formula

$$P = \left(3 + \sqrt{2}\right) \cdot l_{e(Square)}$$

Example with Units

$$17.6569\,\text{m} = \left(3 + \sqrt{2}\right) \cdot 4\,\text{m}$$

4.2) Perimeter of Concave Pentagon given Area Formula

Evaluate Formula

Formula

$$P = \left(3 + \sqrt{2}\right) \cdot \sqrt{\frac{4}{3} \cdot A}$$

Example with Units

$$17.6569\,\text{m} = \left(3 + \sqrt{2}\right) \cdot \sqrt{\frac{4}{3} \cdot 12\,\text{m}^2}$$

4.3) Perimeter of Concave Pentagon given Leg Length of Triangle Formula

Evaluate Formula

Formula

$$P = \left(\left(3 \cdot \sqrt{2}\right) + 2\right) \cdot l_{Leg(Triangle)}$$

Example with Units

$$18.7279\,\text{m} = \left(\left(3 \cdot \sqrt{2}\right) + 2\right) \cdot 3\,\text{m}$$

Variables used in list of Concave Pentagon Formulas above

- **A** Area of Concave Pentagon *(Square Meter)*
- $l_{e(Square)}$ Edge Length of Square of Concave Pentagon *(Meter)*
- $l_{Leg(Triangle)}$ Leg Length of Triangle of Concave Pentagon *(Meter)*
- **P** Perimeter of Concave Pentagon *(Meter)*

Constants, Functions, Measurements used in list of Concave Pentagon 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

Download other Important 2D Geometry PDFs

- Important Annulus Formulas
- Important Antiparallelogram Formulas
- Important Arrow Hexagon Formulas
- Important Astroid Formulas
- Important Bulge Formulas
- Important Cardioid Formulas
- Important Circular Arc Quadrangle Formulas
- Important Concave Pentagon Formulas
- Important Concave Regular Hexagon Formulas
- Important Concave Regular Pentagon Formulas
- Important Crossed Rectangle Formulas
- Important Cut Rectangle Formulas
- Important Cyclic Quadrilateral Formulas
- Important Cycloid Formulas
- Important Decagon Formulas
- Important Dodecagon Formulas
- Important Double Cycloid Formulas
- Important Fourstar Formulas
- Important Frame Formulas
- Important Grid Formulas
- Important H Shape Formulas
- Important Half Yin-Yang Formulas
- Important Heart Shape Formulas
- Important Hendecagon Formulas
- Important Heptagon Formulas
- Important Hexadecagon Formulas
- Important Hexagon Formulas
- Important Hexagram Formulas
- Important House Shape Formulas
- Important Hyperbola Formulas
- Important Hypocycloid Formulas
- Important Isosceles Trapezoid Formulas
- Important L Shape Formulas
- Important Line Formulas
- Important N-gon Formulas
- Important Nonagon Formulas
- Important Octagon Formulas
- Important Octagram Formulas
- Important Open Frame Formulas
- Important Parallelogram Formulas
- Important Pentagon Formulas
- Important Pentagram Formulas
- Important Polygram Formulas
- Important Quadrilateral Formulas
- Important Quarter Circle Formulas
- Important Rectangle Formulas
- Important Rectangular Hexagon Formulas
- Important Regular Polygon Formulas
- Important Reuleaux Triangle Formulas
- Important Rhombus Formulas
- Important Right Trapezoid Formulas
- Important Round Corner Formulas
- Important Salinon Formulas
- Important Semicircle Formulas
- Important Sharp Kink Formulas

- Important Square Formulas
- Important Star of Lakshmi Formulas
- Important T Shape Formulas
- Important Tangential Quadrilateral Formulas
- Important Trapezoid Formulas
- Important Tri-equilateral Trapezoid Formulas
- Important Truncated Square Formulas
- Important Unicursal Hexagram Formulas
- Important X Shape Formulas

Try our Unique Visual Calculators

- Percentage error
- LCM of three numbers
- Subtract fraction

Please SHARE this PDF with someone who needs it!

This PDF can be downloaded in these languages

English Spanish French German Russian Italian Portuguese Polish Dutch

7/8/2024 | 9:44:54 AM UTC