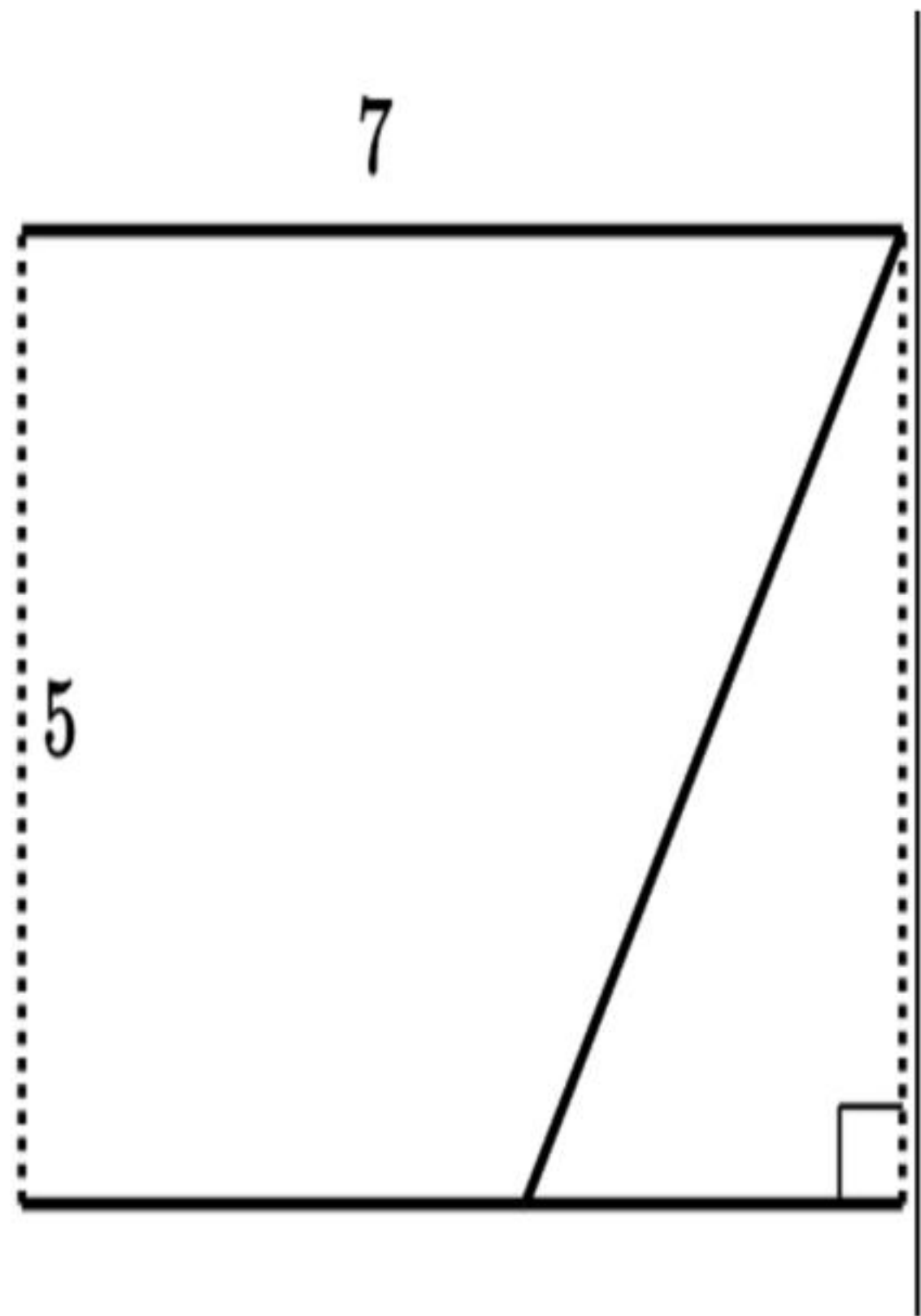


## Concept: Area of parallelogram

If you imagine turning the triangle from the parallelogram into a rectangle

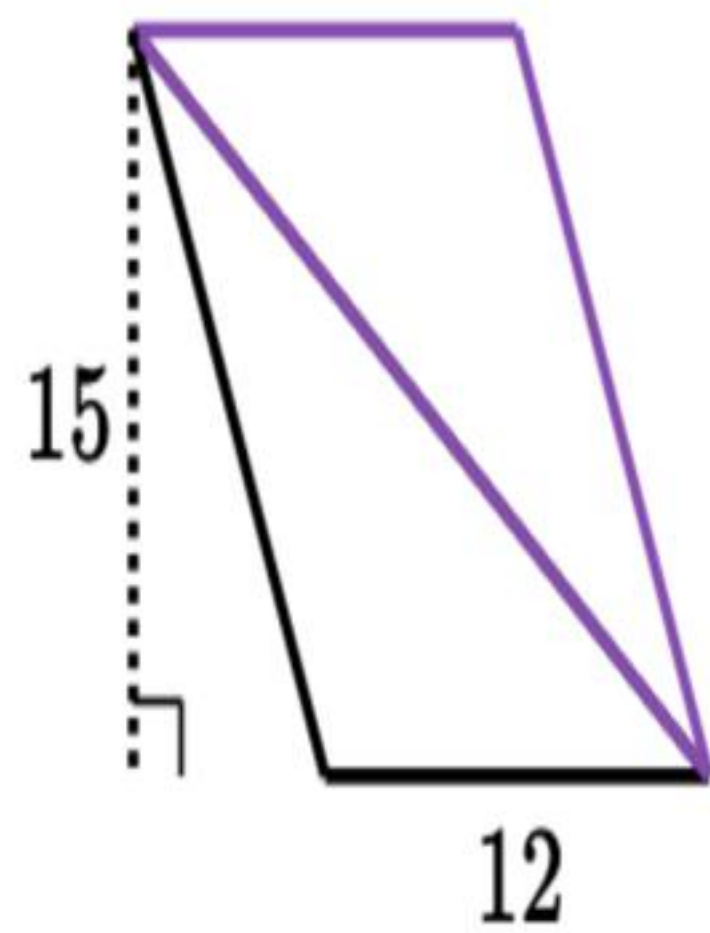


Then you known the size of rectangle is base x height.

**Keywords:** triangle, parallelogram, rectangle

## Concept: Area of triangle

"If you imagine you can double the triangle into parallelogram.

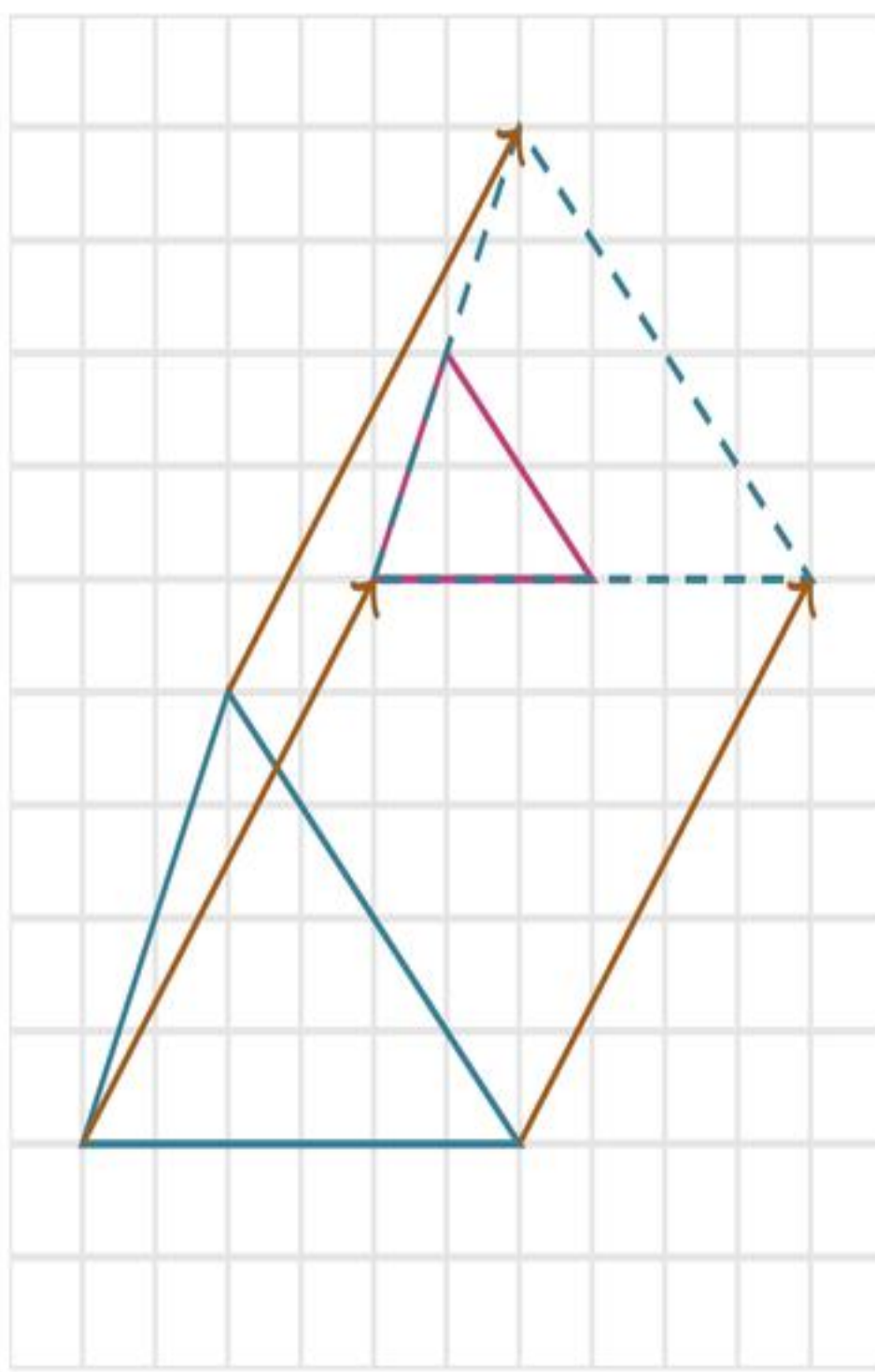


Then you known the size of parallelogram is base x height, and the triangle is half of that area.

**Keywords:** triangle, parallelogram

## Concept: Similarity

If we can map one figure onto the other using a sequence of rigid transformations and dilations, then the figures are similar.



**Keywords:** rigid transformations, dilations

## Concept: Congruent

Two figures are congruent if and only if we can map one onto the other using rigid transformations.



**Keywords:** angle, side, equal, hypotenuse

## Concept: Pythagorean Theorem

The Pythagorean theorem is



$$a^2 + b^2 = c^2$$

Where  $a$  and  $b$  are lengths of the legs of a right triangle and  $c$  is the length of the hypotenuse. The theorem means that if we know the lengths of any two sides of a right triangle, we can find out the length of the last side.

**Keywords:** right angle, hypotenuse, opposite, 90 degrees

## Concept: Tangent

A line that is tangent to a circle at a particular point is perpendicular to the radius at that point.



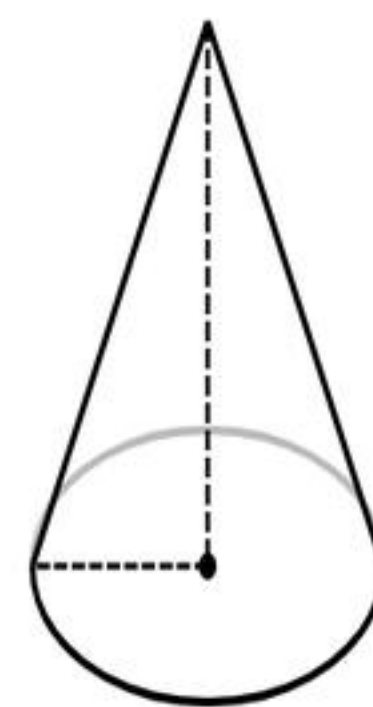
**Keywords:** perpendicular, angle, radius, line

## Concept: Volume of a Cone

**Cones**



A circular cone is a pyramid-like figure that has a base shaped like a circle.



$$\text{Volume}_{\text{circular cone}} = \frac{1}{3}(\text{Area}_{\text{circle}}) \cdot (\text{height})$$

**Keywords:** area, circle, radius, height