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Corollary

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Pythagorean Theorem

Theorem (Pythagoras)

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

Corollary

- *If a2 + b2 = c2, then the triangle is right.*

Proof.

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Pythagorean Theorem

Theorem (Pythagoras)

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

Corollary

- *If a2 + b2 = c2, then the triangle is right.*
- *If a2 + b2 > c2, then the triangle is acute.*

Proof.

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Pythagorean Theorem

Theorem (Pythagoras)

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

Corollary

- *If $a2 + b2 = c2$, then the triangle is right.*
- *If $a2 + b2 > c2$, then the triangle is acute.*
- *If $a2 + b2 < c2$, then the triangle is obtuse.*

Proof.

$AC^2 = AD \cdot AB$
$BC^2 = BD \cdot AB$
$AC^2 + BC^2 = AD \cdot AB + BD \cdot AB = (AD + BD) \cdot AB = AB^2$ □