A∞Ω
MATH@TD

Cosine Law

Course: Grade 10 Mathematics

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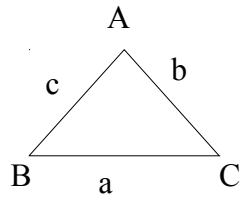
Cosine Law: Used when we have 3 sides or when we have 2 sides and the included angle
- In other words, when we have SSS or SAS

To find a side (have SAS):

$$a^2 = b^2 + c^2 - 2bc\,cosA$$

$$b^2 = a^2 + c^2 - 2ac\,cosB$$

$$c^2 = a^2 + b^2 - 2ab\,cosC$$



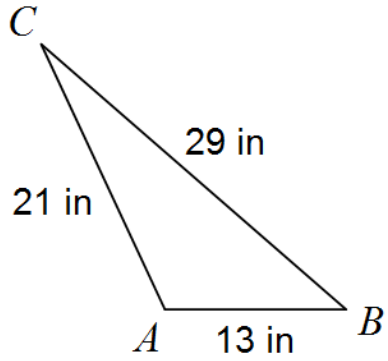
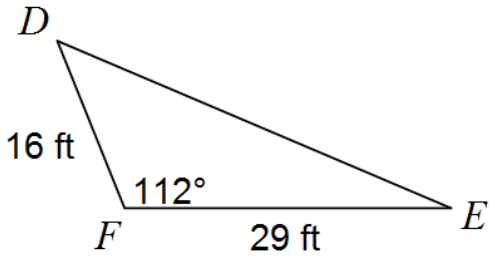
To find an angle (have SSS):

$$\cos A = \frac{b^2 + c^2 - a^2}{2bc}$$

$$\cos B = \frac{a^2 + c^2 - b^2}{2ac}$$

$$\cos C = \frac{a^2 + b^2 - c^2}{2ab}$$

Find ∠A.



Find the length of side *f*.