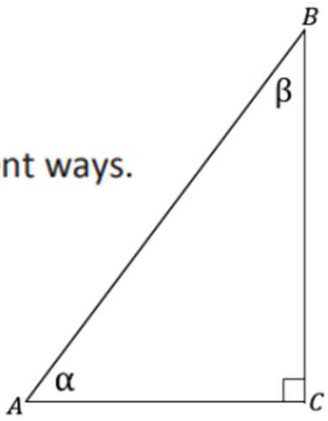
Trigonometry Worksheets

Sine and Cosine of Complementary Angles

Consider the right triangle ABC so that $\angle C$ is a right angle, and the degree measures of $\angle A$ and $\angle B$ are α and β, respectively.

a. Find $\alpha + \beta$.

b. Use trigonometric ratios to describe $\frac{BC}{AB}$ two different ways.



c. Use trigonometric ratios to describe $\frac{AC}{AB}$ two different ways.

d. What can you conclude about $\sin \alpha$ and $\cos \beta$?

e. What can you conclude about $\cos \alpha$ and $\sin \beta$?

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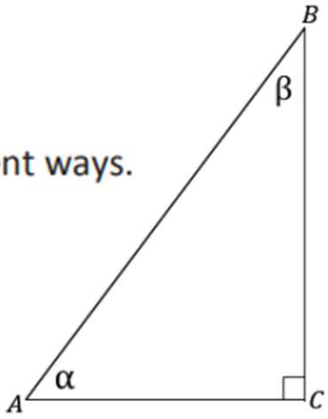
Sine and Cosine of Complementary Angles

Consider the right triangle ABC so that $\angle C$ is a right angle, and the degree measures of $\angle A$ and $\angle B$ are α and β, respectively.

a. Find $\alpha + \beta$.

$90°$



b. Use trigonometric ratios to describe $\frac{BC}{AB}$ two different ways.

$\sin \angle A = \frac{BC}{AB}, \cos \angle B = \frac{BC}{AB}$

c. Use trigonometric ratios to describe $\frac{AC}{AB}$ two different ways.

$\sin \angle B = \frac{AC}{AB}, \cos \angle A = \frac{AC}{AB}$

d. What can you conclude about $\sin \alpha$ and $\cos \beta$?

$\sin \alpha = \cos \beta$

e. What can you conclude about $\cos \alpha$ and $\sin \beta$?

$\cos \alpha = \sin \beta$