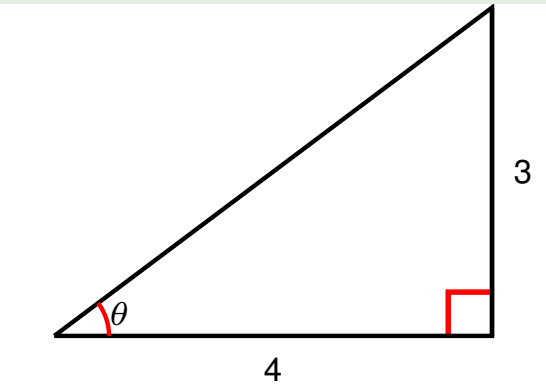
Precalculus
Compute the trigonometric functions in a right angle triangle, part 1

Todor Milev

2019

Example



Let the angle θ be as indicated in the figure. Find the values of the six trigonometric functions of θ.

$\sin\theta =$ $\cos\theta =$ $\tan\theta =$

$\csc\theta =$ $\sec\theta =$ $\cot\theta =$

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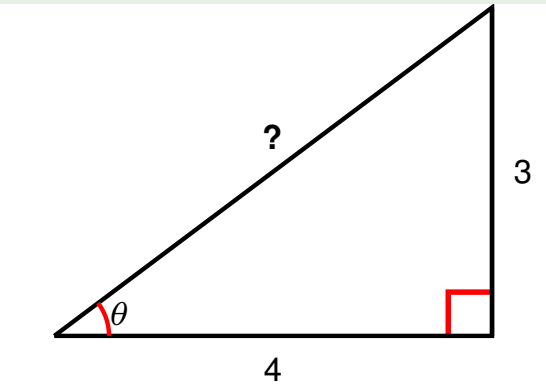

Let the angle θ be as indicated in the figure. Find the values of the six trigonometric functions of θ.

To find the trigonometric functions, we need to know the length of the hypotenuse.

$$\sin\theta= \qquad \cos\theta= \qquad \tan\theta=$$

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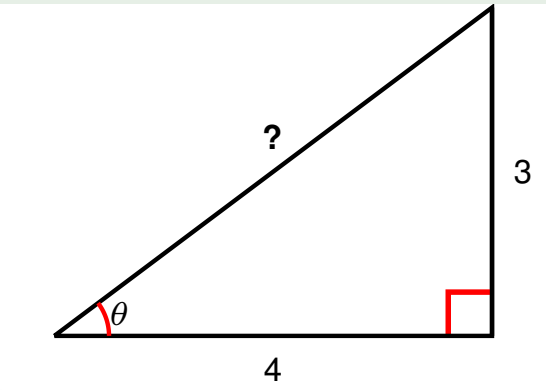

Let the angle θ be as indicated in the figure. Find the values of the six trigonometric functions of θ.

To find the trigonometric functions, we need to know the length of the hypotenuse.

$$\text{hypotenuse} = \textbf{?}$$

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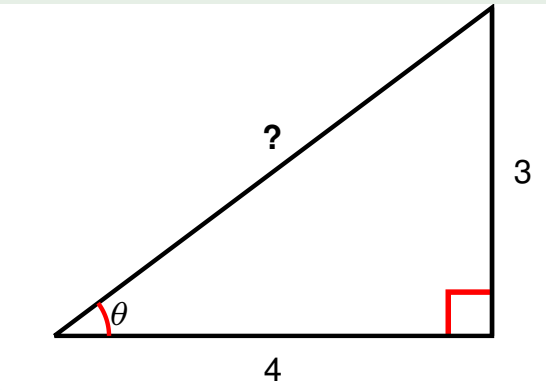

Let the angle θ be as indicated in the figure. Find the values of the six trigonometric functions of θ.

To find the trigonometric functions, we need to know the length of the hypotenuse.

$$\text{hypotenuse} = \sqrt{4^2 + 3^2}$$

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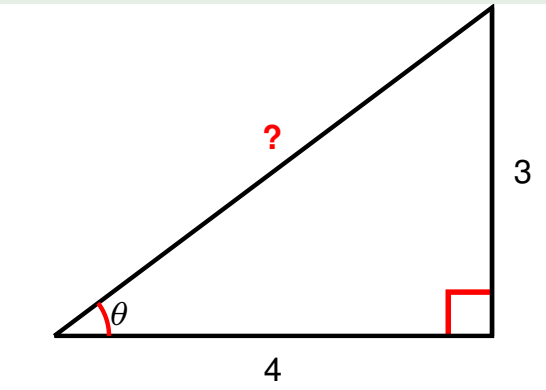

Let the angle θ be as indicated in the figure. Find the values of the six trigonometric functions of θ.

To find the trigonometric functions, we need to know the length of the hypotenuse.

$$\text{hypotenuse} = \sqrt{4^2 + 3^2} = \sqrt{25}$$

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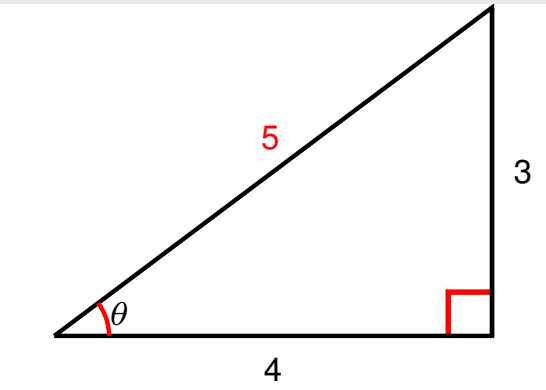

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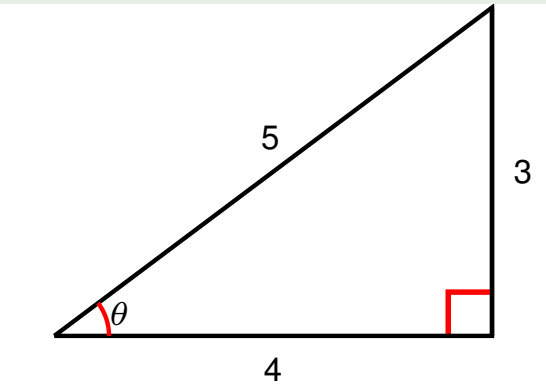

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Using the right angle triangle ratio interpretations of the trig functions, we can compute:

$$\sin\theta = ? \qquad \cos\theta = \qquad \tan\theta =$$

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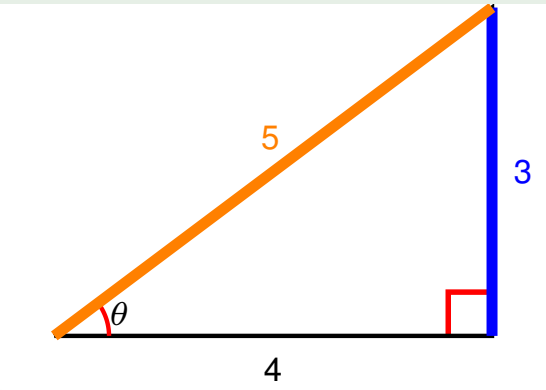

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$$\sin\theta = \frac{3}{5} \qquad \cos\theta = \qquad \tan\theta =$$

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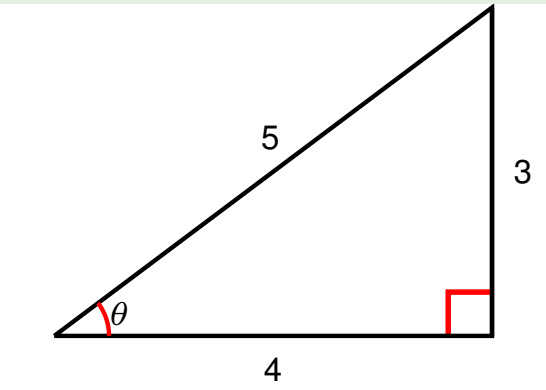

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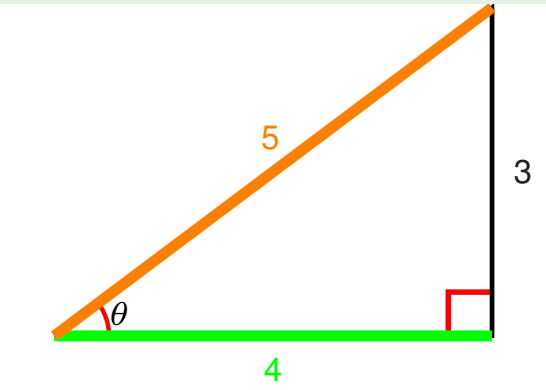

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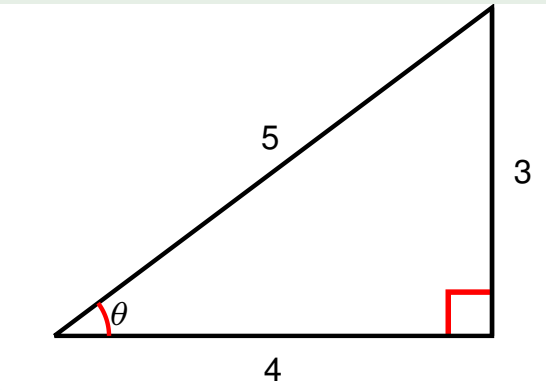

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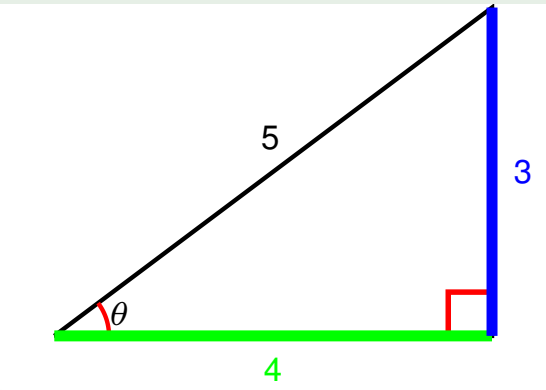

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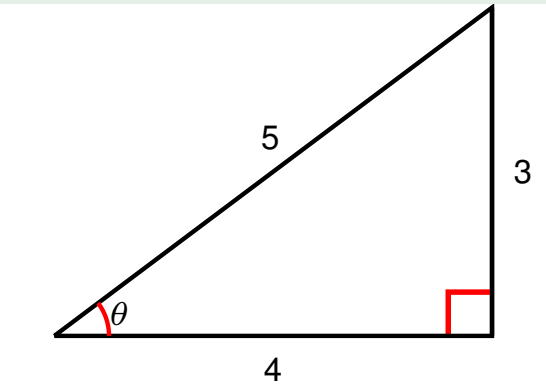

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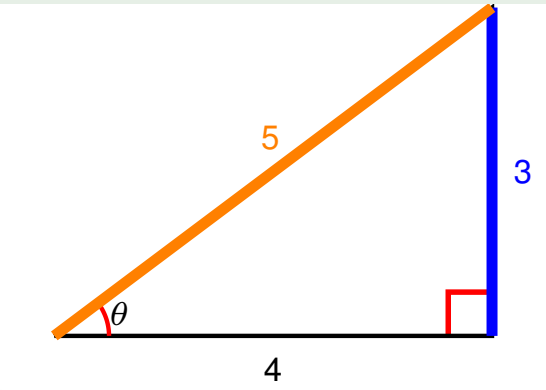

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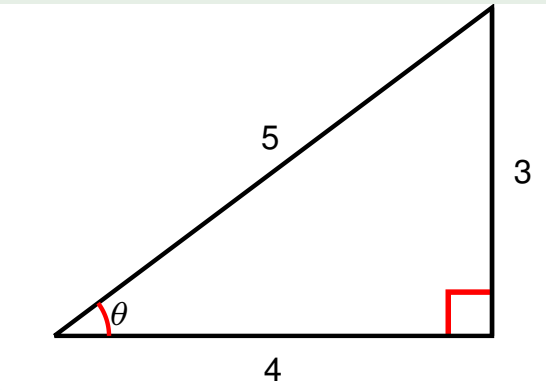

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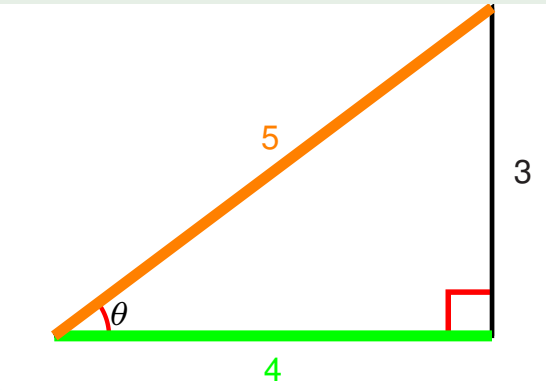

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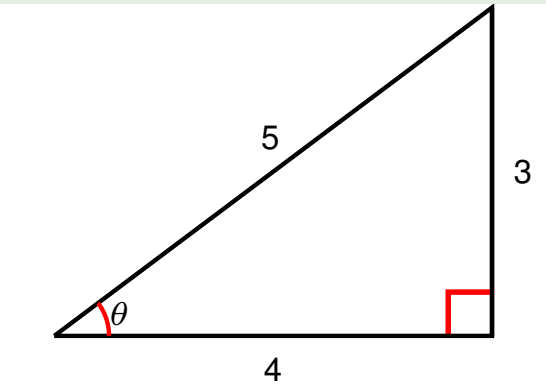

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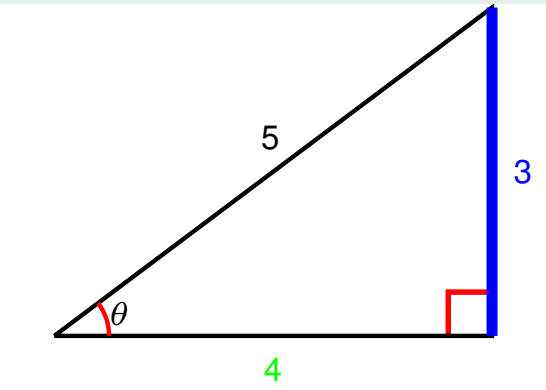

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