

Study Tips

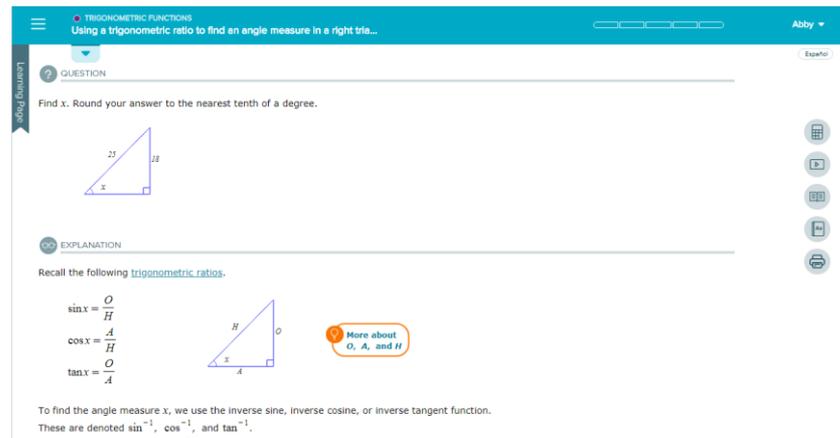
ALEKS Training Series

Students

Starting a New Topic

To start a new topic, select “Start My Path” or “Continue My Path” on the homepage. If you aren’t on the homepage, open the Menu button in the top left-hand corner of the screen and select “Learn.”

In either case, the topic you are most ready to learn will appear first.



TRIGONOMETRIC FUNCTIONS
Using a trigonometric ratio to find an angle measure in a right tri...

Abby

QUESTION

Find x . Round your answer to the nearest tenth of a degree.



EXPLANATION

Recall the following [trigonometric ratios](#).

$$\sin x = \frac{O}{H}$$

$$\cos x = \frac{A}{H}$$

$$\tan x = \frac{O}{A}$$


[More about O, A, and H](#)

To find the angle measure x , we use the inverse sine, inverse cosine, or inverse tangent function. These are denoted \sin^{-1} , \cos^{-1} , and \tan^{-1} .

Viewing Information About a Topic

You can find the name of the topic in the blue bar at the top of the screen. If the title is cut off, select the topic's name and a pop up window will appear. This will show you the entire topic name as well as which pie slice it comes from.

The screenshot shows a learning interface with a blue header bar. The header contains a hamburger menu icon, the text "TRIGONOMETRIC FUNCTIONS Using a trigonometric ratio to find an angle measure in a right triangle...", and the user name "Abby". Below the header, there is a "QUESTION" section with the text "Find x. Round your answer to the nearest tenth of a degree." and a right-angled triangle with a hypotenuse of 25 and an adjacent side of 18. The angle x is at the bottom-left vertex. Below the question is an "EXPLANATION" section. It starts with "Recall the following trigonometric ratios." and lists:

$$\sin x = \frac{O}{H}$$

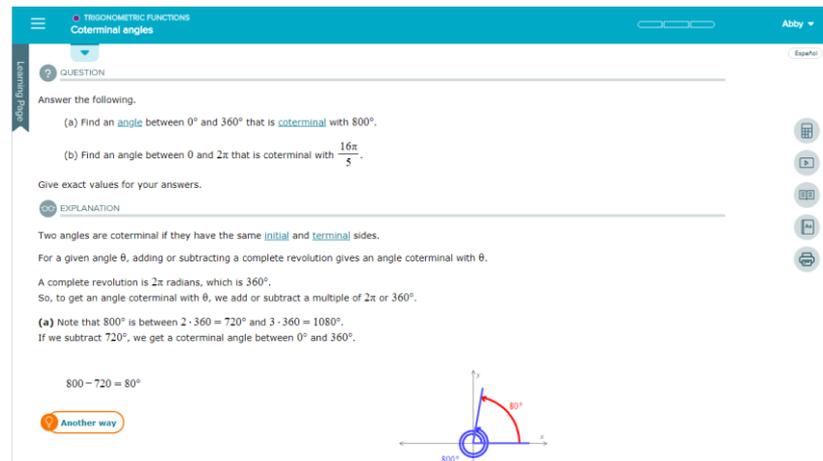
$$\cos x = \frac{A}{H}$$

$$\tan x = \frac{O}{A}$$
 Next to these formulas is a smaller right-angled triangle with hypotenuse H, opposite side O, and adjacent side A. Below the explanation, there is text: "To find the angle measure x, we use the inverse sine, inverse cosine, or inverse tangent function. These are denoted \sin^{-1} , \cos^{-1} , and \tan^{-1} . We can also write these as arcsin, arccos, and arctan." and the equation $x = \sin^{-1}\left(\frac{O}{H}\right)$. A pop-up window titled "SLICE NAME" is open, showing "Trigonometric Functions" as the slice name and "Using a trigonometric ratio to find an angle measure in a right triangle" as the topic name. There is a "More about O, A, and H" button below the pop-up. On the right side of the interface, there are several icons: a calculator, a play button, a list icon, a print icon, and a refresh icon.

Tips About Using Learning Page

In a Learning Page, you will see a question with a stepped-out explanation.

- Read through the example carefully, taking notes in your notebook.
- Note the tools and resources on the learning page.
- Observe the hyperlinks giving definitions, helpful hints, or examples.
- There may be an orange button with a lightbulb that says “More” or “Another Way.” Select to see an alternate solution or more details.



The screenshot shows a Learning Page interface for the topic 'Coterminal angles'. The page is titled 'TRIGONOMETRIC FUNCTIONS Coterminal angles' and is associated with the user 'Abby'. The page is divided into two main sections: 'QUESTION' and 'EXPLANATION'.

QUESTION

Answer the following.

(a) Find an angle between 0° and 360° that is **coterminal** with 800° .

(b) Find an angle between 0 and 2π that is coterminal with $\frac{16\pi}{5}$.

Give exact values for your answers.

EXPLANATION

Two angles are coterminal if they have the same **initial** and **terminal** sides.

For a given angle θ , adding or subtracting a complete revolution gives an angle coterminal with θ .

A complete revolution is 2π radians, which is 360° .

So, to get an angle coterminal with θ , we add or subtract a multiple of 2π or 360° .

(a) Note that 800° is between $2 \cdot 360 = 720^\circ$ and $3 \cdot 360 = 1080^\circ$.
If we subtract 720° , we get a coterminal angle between 0° and 360° .

$800 - 720 = 80^\circ$

At the bottom of the explanation, there is an orange button with a lightbulb icon and the text 'Another way'. To the right of the text is a diagram showing a coordinate plane with a blue arc representing 800° and a red arc representing 80° , both starting from the positive x-axis.



General Tips

- On the learning page, there are icons on the right-hand side of the screen offering helpful resources including a calculator, videos, the eBook, a dictionary, the ability to print, and a way to email your instructor.
- After reading an example, select **Start** at the bottom of the page.
- Try copying the problem into your own notebook.
- If you are stuck, use a resource.
- If you want to see another problem worked out, you can choose to see the explanation.

Support and Resources

TECH SUPPORT & FAQ:

CALL: (800) 258-2374

EMAIL & CHAT: aleks.com/support

MONDAY-THURSDAY: 7 AM – 1 AM EST

FRIDAY: 7 AM – 9 PM EST

SUNDAY: 4 PM – 1 AM EST

FIND MORE SUPPORT:

mhhe.com/collegesmarter