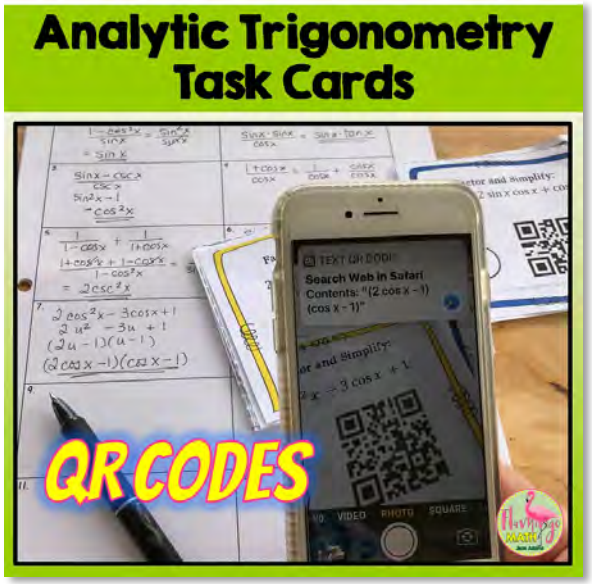


Analytic Trigonometry Task Cards Review

Your Pre-AP PreCalculus or Trigonometry students will apply the analytic trigonometric properties for unit review.

This **Analytic Trigonometry Task Card Review** activity is designed to help your **Pre-Calculus or Trigonometry** students at the end of the unit on ***Analytic Trigonometry***. There are 24 task cards in the activity with QR Codes. *A second set is also included without the QR Codes.*

Copy the task cards on card stock and laminate for durability. Students are provided a QR-Code to check their answers for each equation. A student recording sheet and answer key are provided.

Students will practice the following skills:

- ☑ Simplify identities
- ☑ Factor and simplify trig expressions
- ☑ Find double angles, given conditions
- ☑ Solve trigonometric equations
- ☑ Use Law of Sines to solve triangles
- ☑ Use Law of Cosines to solve triangles
- ☑ Find area of oblique triangles
- ☑ Solve application problems

Teaching Suggestions:

- Use the set as a group activity for an end unit review.
- Use the cards as an independent activity prior to assessing students.

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Subtract and simplify:

$$\csc x - \frac{\cos^2 x}{\sin x}$$

1

Simplify:

$$\frac{1 - \cos^2 x}{\cos x}$$

2

Simplify:

$$\frac{\sin x - \csc x}{\csc x}$$

3

Simplify:

$$\frac{1 + \cos x}{\cos x}$$

4

Add and Simplify:

$$\frac{1}{1 - \cos x} + \frac{1}{1 + \cos}$$

5

Factor and Simplify:

$$2\cos^2 x - 3\cos x + 1$$

7

Factor and Simplify:

$$2\sin^2 x + \sin x - 1$$

8

Given $\cos x = -\frac{8}{17}$ and $\tan x < 0$

Find $\sin 2u$:

9

Given $\sin x = -\frac{3}{7}$ and $\tan x < 0$

Find $\cos 2u$:

Solve for $[0, 2\pi)$:

$$3\sin^2 x - 6\sin x = 0$$

13

Solve for $[0, 2\pi)$:

$$15\tan x = 5\sqrt{3}$$

14

Solve for $[0, 2\pi)$:

$$\cos 2x = \frac{1}{2}$$

Solve the triangle if $A = 30°, a = 8, b$

Solve for $[0, 2\pi)$:

$$15\tan x =$$

Two triangles, given

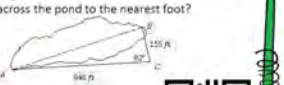
$B = 41°, a = 4, b = 3$

18

Two sailboats leave a harbor in the Bahamas at the same time. The first sails at 23 mph in a direction 330°. The second sails at 34 mph in a direction 210°. Assuming that both boats maintain speed and heading, after 4 hours, how far apart are the boats?

23

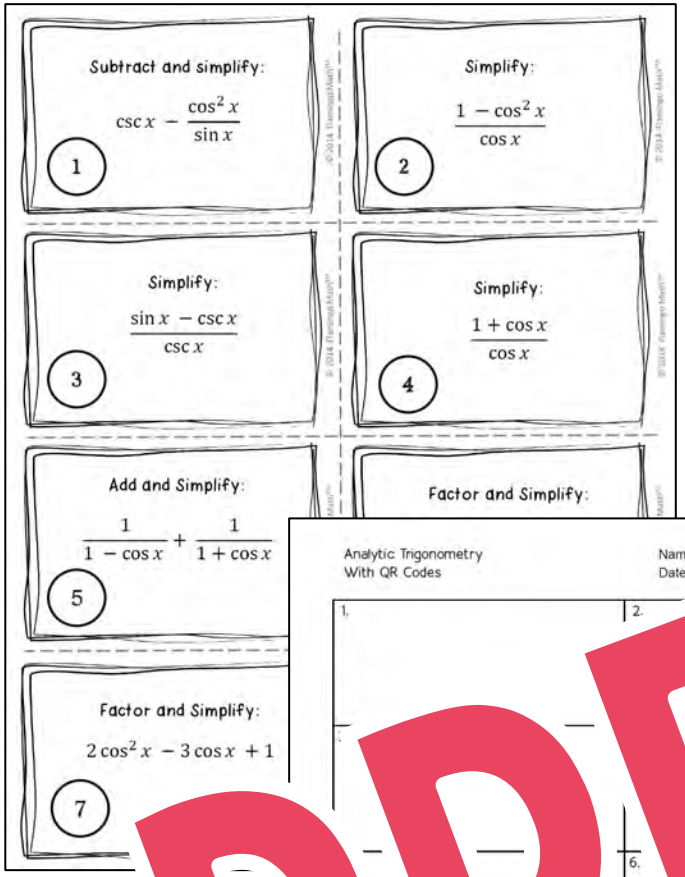
Rachel must find the distance from A to B on opposite sides of a lake. She locates a point C that is 840 feet from A and 155 ft from B. Her angle at C measures 82°. What is the distance across the pond to the nearest foot?

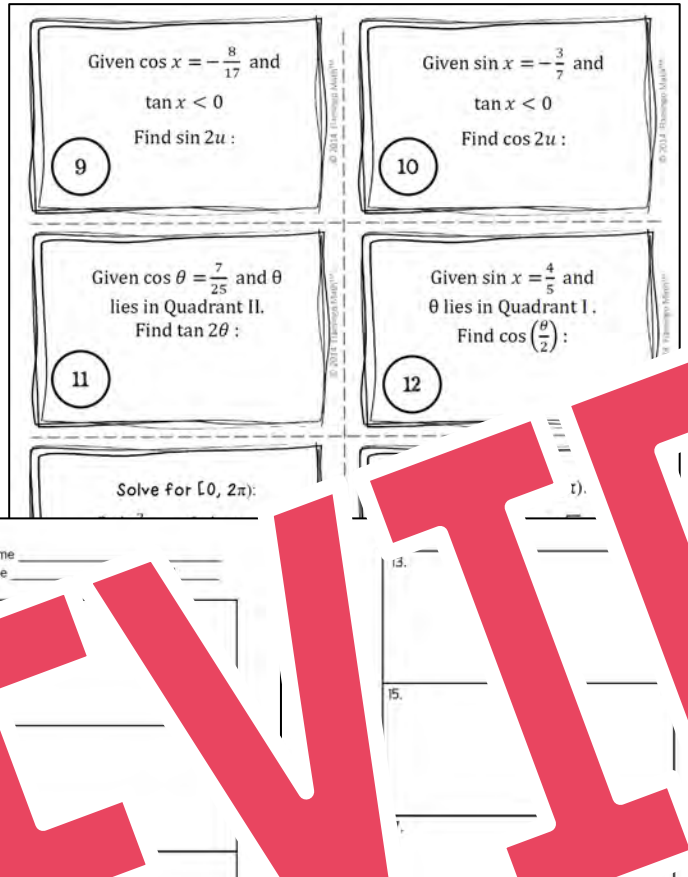


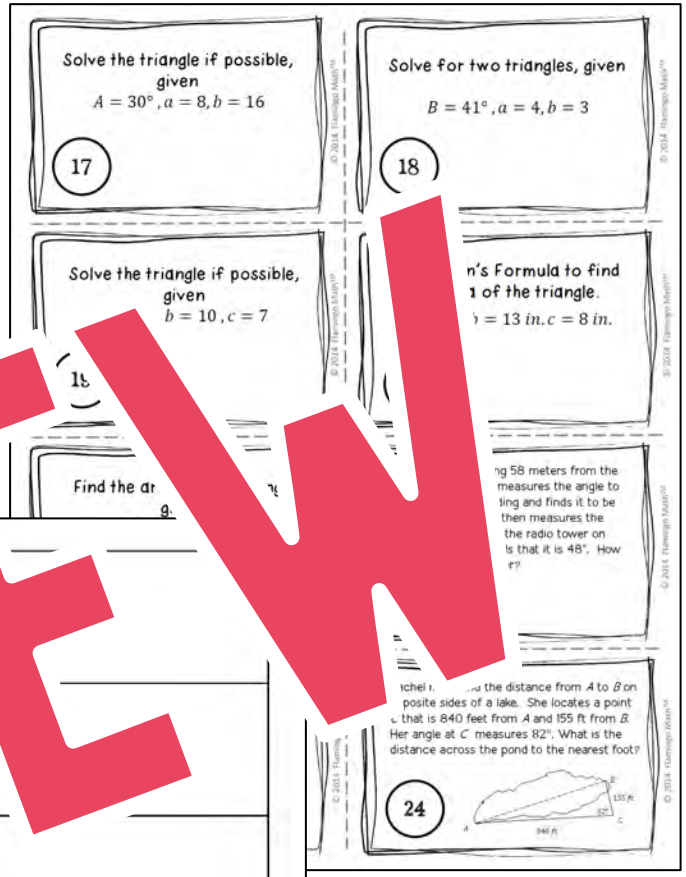
24

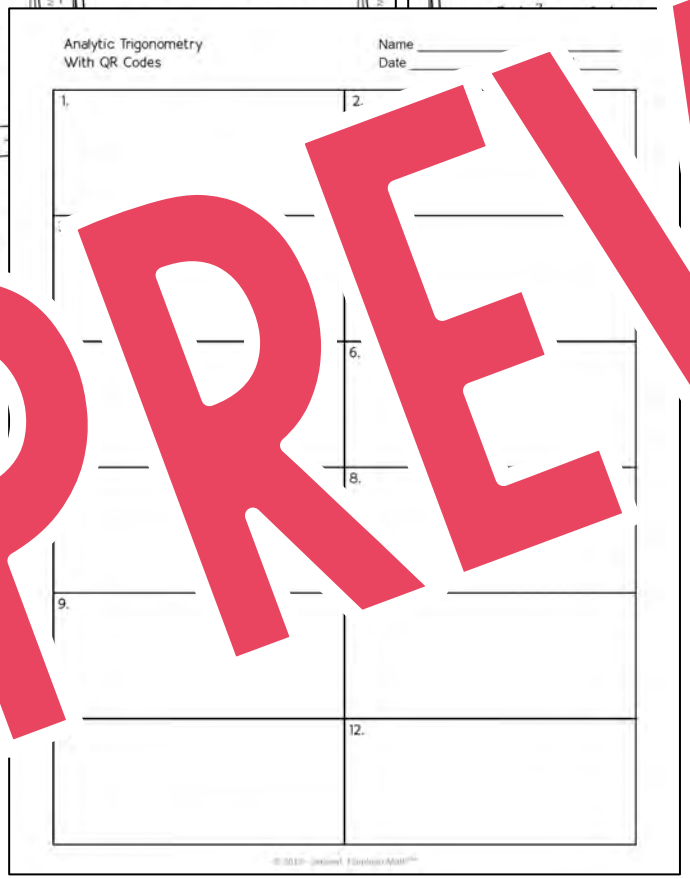
PREVIEW

24 Task Cards with QR Codes









PREVIEW

24 Task Cards without QR Codes