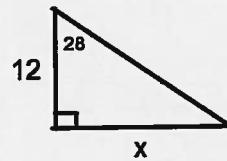


Trigonometry Review

1) Find x



$$\tan = \frac{\text{opp}}{\text{adj}}$$

$$\tan 28 = \frac{x}{12}$$

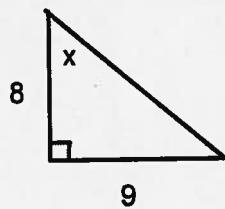
$$\tan 28 = \frac{x}{12}$$

$$1x = \tan 28(12)$$

$$x = 6.38$$

Feb 26-8:01 PM

2) Find the measure of x.



$$\tan = \frac{\text{opp}}{\text{adj}}$$

$$\tan = \frac{9}{8}$$

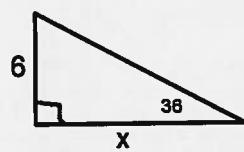
$$\tan = 1.125$$

$$\tan^{-1} = 48.37^\circ$$

$$x = 48.37^\circ$$

Feb 26-8:02 PM

3) Find x



$$\tan = \frac{\text{opp}}{\text{adj}}$$

$$\tan 36 = \frac{6}{x}$$

$$\frac{\tan 36}{1} = \frac{6}{x}$$

$$\tan 36 \times 1 = 6 \times 1$$

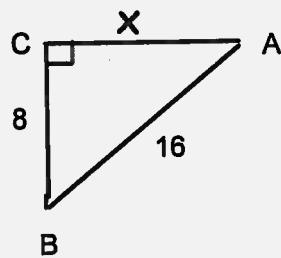
$$\frac{\tan 36 \times 1}{\tan 36} = \frac{6 \times 1}{\tan 36}$$

$$x = \frac{6}{\tan 36}$$

$$x = 8.26$$

Feb 26-8:02 PM

4) Find x.



$$c^2 - a^2 = b^2$$

$$16^2 - 8^2 = b^2$$

$$256 - 64 = b^2$$

$$192 = b^2$$

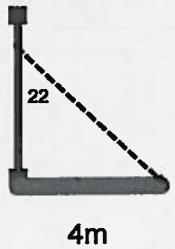
$$\sqrt{192} = \sqrt{b^2}$$

$$13.86 = b$$

Feb 26-8:02 PM

5) A ladder leans against a wall. The base of the ladder is 4m from the wall. The top of the ladder makes an angle with the wall of 22 degrees.

Draw a diagram and then find how far up the wall the ladder reaches.



$$\tan 22 = \frac{4}{x}$$

$$\frac{\tan 22}{1} = \frac{4}{x}$$

$$\tan 22 x = 1 \times 4$$

$$\frac{\tan 22 x}{\tan 22} = \frac{4}{\tan 22}$$

$$x = \frac{4}{\tan 22}$$

$$x = 9.9m$$

Feb 26-8:02 PM



Intro

The Lingo

VOCABULARY

- reference angle
- right angle
- opposite side
- hypotenuse
- adjacent side
- Trigonometric Ratios
- SOH CAH TOA

Vocabulary

Reference Angle

VOCABULARY

- reference angle
- right angle
- opposite side
- hypotenuse
- adjacent side
- Trigonometric Ratios
- SOH CAH TOA

The angle that is being referred to.

Reference Angle

Right Angle

VOCABULARY

- reference angle
- right angle
- opposite side
- hypotenuse
- adjacent side
- Trigonometric Ratios
- SOH CAH TOA

The angle that is 90° .

Right Angle

Opposite Side

VOCABULARY

- reference angle
- right angle
- opposite side
- hypotenuse
- adjacent side
- Trigonometric Ratios
- SOH CAH TOA

The side directly across from the reference angle.

Opposite Side

Hypotenuse

VOCABULARY

- reference angle
- right angle
- opposite side
- hypotenuse
- adjacent side
- Trigonometric Ratios
- SOH CAH TOA

The opposite side of the right angle.

Hypotenuse

Adjacent Side

VOCABULARY

- reference angle
- right angle
- opposite side
- hypotenuse
- adjacent side
- Trigonometric Ratios
SOH CAH TOA

The side beside the reference angle that is not the hypotenuse.

PRACTICE:

Adjacent Side

Practice (Example 1) **VOCABULARY**

Vocabulary

- reference angle
- right angle
- opposite side
- hypotenuse
- adjacent side
- Trigonometric Ratios
SOH CAH TOA

Place the vocabulary words on the appropriate side of the triangle.

hypotenuse
opposite side
adjacent side

Practice 1

Practice (Example 2) **VOCABULARY**

Vocabulary

- reference angle
- right angle
- opposite side
- hypotenuse
- adjacent side
- Trigonometric Ratios
SOH CAH TOA

Place the vocabulary words on the appropriate sides of the triangle.

hypotenuse
opposite side
adjacent side

Practice 2

Practice (Example 3) **VOCABULARY**

Vocabulary

- reference angle
- right angle
- opposite side
- hypotenuse
- adjacent side
- Trigonometric Ratios
SOH CAH TOA

Place the vocabulary words on the appropriate sides of the triangle.

hypotenuse
opposite side
adjacent side

Practice 3

Practice (Example 4) **VOCABULARY**

Vocabulary

- reference angle
- right angle
- opposite side
- hypotenuse
- adjacent side
- Trigonometric Ratios
SOH CAH TOA

Place the vocabulary words on the appropriate sides of the triangle.

hypotenuse
opposite side
adjacent side

Practice 4

Practice (Example 5) **VOCABULARY**

Vocabulary

- reference angle
- right angle
- opposite side
- hypotenuse
- adjacent side
- Trigonometric Ratios
SOH CAH TOA

Place the vocabulary words on the appropriate sides of the triangle.

hypotenuse
opposite side
adjacent side

Practice 5

Practice (Example 6) **VOCABULARY**

Vocabulary:
reference angle
right angle
opposite side
hypotenuse
adjacent side
Trigonometric Ratios
SOH CAH TOA

Place the vocabulary words on the appropriate side of the triangle.

hypotenuse
opposite side
adjacent side

Practice 6

Trig. Ratios **Investigate**

Vocabulary:
reference angle
right angle
opposite side
hypotenuse
adjacent side
Trigonometric Ratios
SOH CAH TOA

The ratios that relate the angles and sides of a 90° triangle.

Sine Ratio
Cosine Ratio
Tangent Ratio

Trig. Ratios

SOH CAH TOA **VOCABULARY**

Vocabulary:
reference angle
right angle
opposite side
hypotenuse
adjacent side
Trigonometric Ratios
SOH CAH TOA

The memory aid for the Trigonometric Ratios.

Soh Cah Toa

Finding Side Lengths **Application**

Vocabulary:
reference angle
right angle
opposite side
hypotenuse
adjacent side
Trigonometric Ratios
SOH CAH TOA

Determine which Trigonometric Ratio you would use to find the missing side length.

Sine Ratio
Cosine Ratio
Tangent Ratio

EXAMPLE (click here)

App: Finding Sides

Practice **Finding Side Lengths** **Application**

Vocabulary:
reference angle
right angle
opposite side
hypotenuse
adjacent side
Trigonometric Ratios
SOH CAH TOA

Use Trigonometry to find the missing side length.

Sine Ratio
Cosine Ratio
Tangent Ratio

Given: 350 m, 15°, angle of depression

Find: ?

Given: 2.5 km, 45°, 9 km

Find: ?

App: Examples

Finding Angles **Application**

Vocabulary:
reference angle
right angle
opposite side
hypotenuse
adjacent side
Trigonometric Ratios
SOH CAH TOA

Determine which Trigonometric Ratio you would use to find the missing angle.

Sine Ratio
Cosine Ratio
Tangent Ratio

EXAMPLE (click here)

App: Finding Angles