

Week Feb. 3 Objectives

Section 9.4: The Tangent Ratio

Common Core State Standards: G.SRT.C.6, G.SRT.C.8

Learning Target: Understand and use the tangent ratio.

Success Criteria

- Explain the tangent ratio.
- Find tangent ratios.
- Use tangent ratios to solve real-life problems.

Vocabulary: trigonometric ratio, tangent, angle of elevation

Section 9.5: The Sine and Cosine Ratios

Common Core State Standards: G.SRT.C.6, G.SRT.C.7, G.SRT.C.8

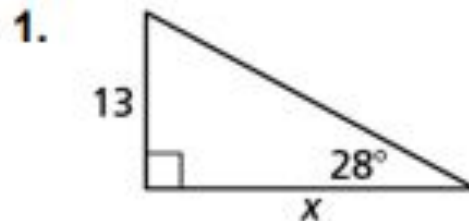
Learning Target: Understand and use the sine and cosine ratios.

Success Criteria

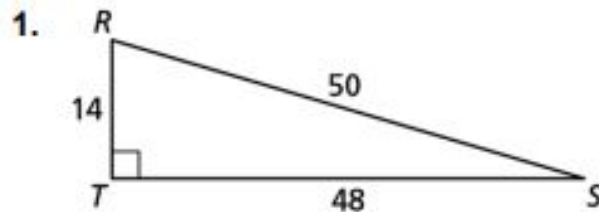
- Explain the sine and cosine ratios.
- Find sine and cosine ratios.
- Use sine and cosine ratios to solve real-life problems.

Vocabulary: sine, cosine, angle of depression

Find the value of x .



In Exercises 1 and 2, find $\sin R$, $\sin S$, $\cos R$, $\cos S$, as a fraction and as a decimal.



Week Overview: Geometry (CP) Q3 Feb 3-7, 2025

Monday --- Review last quiz --- generate examples such as next slide on dump truck example Then Play Kahoot

https://kahoot.it/challenge/08370133?challenge-id=6a35df94-15d6-42bb-9a0b-07404aeef3ff_1738548369287

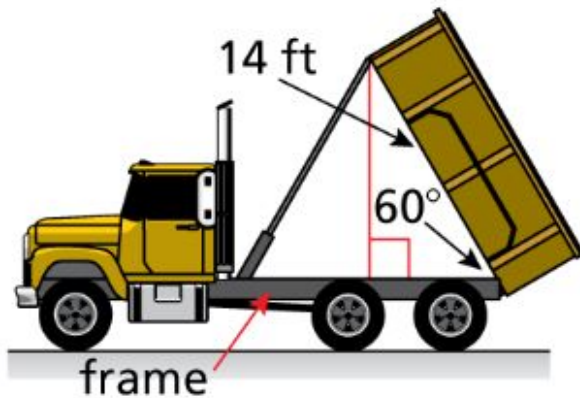
HW Play Kahoot again and do #1-10 off dynamic classroom 9.2 section with homeroom tutoring session option.

Tuesday --- Retest/Replace Quiz on Special Triangles

THEN take notes on 9.4 by student watching and copying notes from examples off dynamic classroom #1,2,3 and their following self assessment problems #1-3, 4-6 till all students are finished. Then Mrs. Pletcher has students do a drawing on grid paper to explain concept of tangent compared to slope. Finish notes for homework.

Monday Opener:

The body of a dump truck rests on a frame. The body is raised to empty a load of sand. How far from the frame is the front of the 14-foot-long body when it is tipped upward by a 60° angle? Round your answer to the nearest tenth.



The 14-foot-long body is about feet high from the frame.



1

2



Overview



Support
CalcCha
CalcView

Tuesday Notes: Use dynamic classroom 9.4

9.4 The Tangent Ratio

Self-Assessment Learning Target

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Cumulative Practice

Prerequisite Skills Practice

Using the Tangent Ratio

Key Idea: Tangent Ratio

Example 1: Finding Tangent Ratios

Self-Assessment 1 - 3

Example 2: Finding a Leg Length

Example 3: Using a Special Right Triangle to Find a Tangent

Self-Assessment 4 - 6

Solving Real-Life Problems

$\angle B$. Notice that the leg adjacent to $\angle A$ is the leg *opposite* $\angle B$ and the leg opposite $\angle A$ is the leg *adjacent* to $\angle B$.

EXAMPLE 1 Finding Tangent Ratios

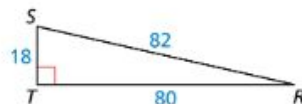
Example

Stepped Out

Video

See another

Find $\tan S$ and $\tan R$. Write each answer as a fraction and as a decimal.



SOLUTION

$$\tan S = \frac{\text{opp } \angle S}{\text{adj to } \angle S} = \frac{RT}{ST} = \frac{80}{18} = \frac{40}{9} \approx 4.4444$$

$$\tan R = \frac{\text{opp } \angle R}{\text{adj to } \angle R} = \frac{ST}{TR} = \frac{18}{80} = \frac{9}{40} = 0.225$$

Self-Assessment

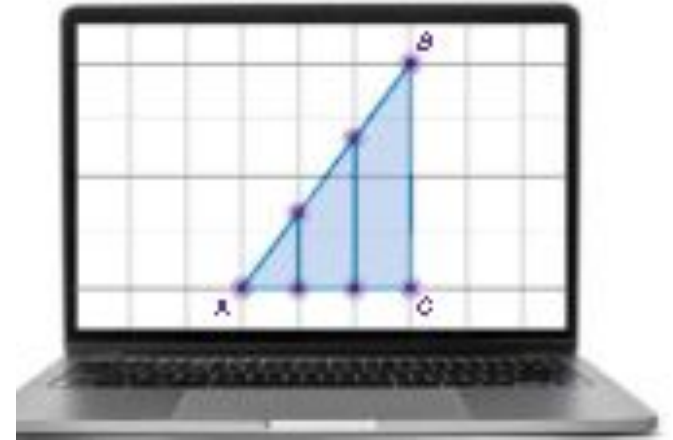
Exercises 1 - 3



Activate
Go to Setting

Explore it - Tangent explained off grid of similar triangles

- Make triangle 3-4-5 to show.
- Slope is rise y over run x .
- Connect also to circle radius and unit circle.
- Tangent is opposite over adjacent at 90 angle.



Week Overview: Geometry (CP) Q3 Feb 3-7, 2025

Wednesday --- Check and explain the self assessments off homework. Assign dynamic classroom practice 9.4 # 1-14. Finish for homework.

Thursday --- Mini Quiz at start of quiz online. Students start notes with dynamic classroom 9.5 examples # 1-3 followed by the self assessment problems. When quiz is completed by all, Mrs. Pletcher will help with notes and self assessment problems or students finish for homework.

Friday ---Review quiz 9.4. Check and explain the self assessments off homework. Use example 6 dynamic classroom as notes. Then Assign dynamic classroom practice 9.5 # 1-17 odds only.. Finish for homework.