Solve problems using ratio and proportions.
Know that after any of transformation (rotation, reflection, and translation), the shape still has the same size, area, angles and side lengths.
Understand that during transformation called a dilation, (enlargement or reduction), the shape becomes bigger or smaller.
Investigate the fundamental concepts behind trigonometry: three basic trig functions and how to determine which trig function to use.
Use SOH CAH TOA to memorize the three main trigonometric functions.

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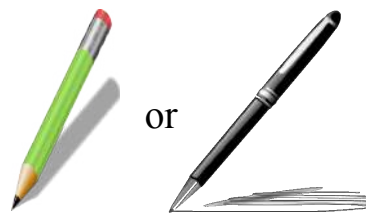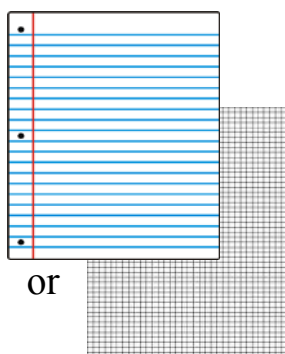
Week 6, Lesson 1

1. 6 Week Practice Test
2. Extra Practice

Language Objectives

I will demonstrate my ability to translate, reflect, rotate or dilate an object on a coordinate system.
I will demonstrate my ability to solve real world problems using similar triangles.
I will demonstrate my ability to solve a triangle using the three trigonometric ratios.
I will demonstrate my knowledge of concepts covered in Geometry 1.

You need 1 piece of extra paper and a writing utensil

or

or

Solve problems using ratio and proportions.
Know that after any of transformation (rotation, reflection, and translation), the shape still has the same size, area, angles and side lengths.
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Week 6, Lesson 2

1. Warn-up
2. Practice Test Corrections
3. ICA
4. HW: Study Guide (For a Grade)

Language Objectives

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I will demonstrate my ability to solve a triangle using the three trigonometric ratios.
I will demonstrate my knowledge of concepts covered in Geometry 1.

Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up

Warm-up: Answer the following questions.

Burger Queen offers 4 types of burgers, 5 types of beverages, and 3 types of desserts. If a meal consists of 1 burger, one beverage and one dessert, how many possible meals can be chosen?

Choose:

- ⊙ 20
- ⊙ 30
- ⊙ 60
- ⊙ 120

Kyle has 5 tank tops, 3 pairs of jeans, and 2 pairs of sneakers. How many different outfits consisting of one tank top, one pair of jeans, and one pair of sneakers are possible?

Choose one:
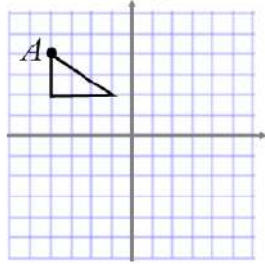- ⊙ **10**
- ⊙ **24**
- ⊙ **30**

For every question that you got WRONG, you must:
1. Find the error.
2. Explain the error.
3. Answer the question correctly.

DUE TODAY!

1) What is the coordinate of the Point A after a rotation of $90°$ counter-clock wise around the origin?
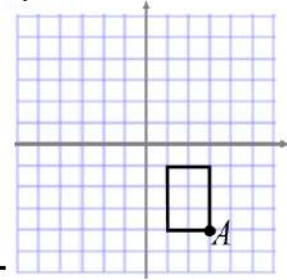
Graph the rotation.

$A' = ($ _____ , _____ $)$

2) What is the coordinate of the image of Point A after a reflection across the line $y = x$?

Graph the reflection.

$A' = ($ _____ , _____ $)$
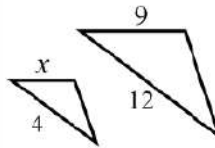
4) Solve.

$$\frac{x + 5}{6} = \frac{x + 4}{3}$$

5) Find the missing side.

6) Find the value of x.

24
x
40
50
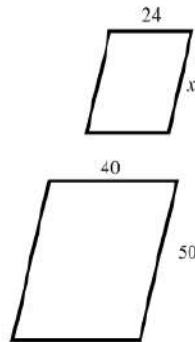
7) Find the length of $\overline{AC}$.

2
6
x
15
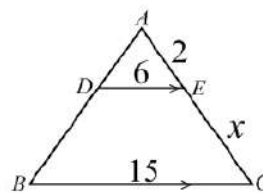
15) What is the length of $\overline{AC}$ if $\angle A \cong \angle B$?

$3x - 8$
$2x + 10$

$\overline{AC} = $ ____
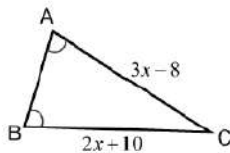
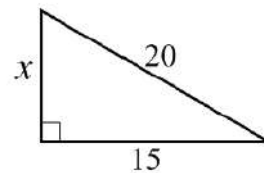**16)** $\angle A$ and $\angle B$ are supplementary. If the $m\angle A = 80$, and $m\angle B = 5x - 15$ what is the value of x?

$x = $ ____

18) Find the value of x.

x
20
15

$x = $ ____

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Week 6, Lesson 3

1. 3 Week EXAM

Language Objectives

I will demonstrate my ability to translate, reflect, rotate or dilate an object on a coordinate system.
I will demonstrate my ability to solve real world problems using similar triangles.
I will demonstrate my ability to solve a triangle using the three trigonometric ratios.
I will demonstrate my knowledge of concepts covered in Geometry 1.

Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up

You need 1 piece of extra paper and a writing utensil
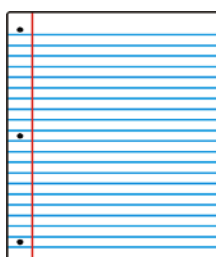
or

or

Understand that the term "solving the triangle" means that if we start with a right triangle and know any two sides, we can find or solve for the unknown side.
Investigate the fundamental concepts behind trigonometry: three basic trig functions and how to determine which trig function to use.

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Week 6, Lesson 4

1. Warm-up
2. Statue of Liberty Problem
3. ICA
4. Extra Practice

Language Objectives

I will use ratios and proportions to determine the height of the statue of liberty.

I will write a summary explaining how ratios and proportions can be used to find heights and lengths.

Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up

Warm-up: Answer the following questions.

A movie theater sells 3 sizes of popcorn (small, medium, and large) with 3 choices of toppings (no butter, butter, extra butter). How many possible ways can a bag of popcorn be purchased?

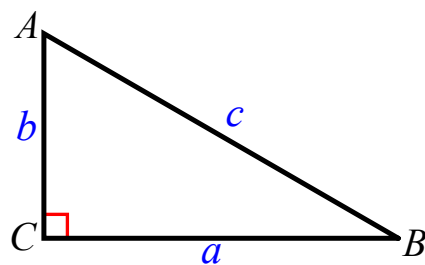**Choose one:**
- ○ **3**
- ○ **9**
- ○ **27**

The ice cream shop offers 31 flavors. You order a double-scoop cone. In how many different ways can the clerk put the ice cream on the cone if you wanted two different flavors?

Choose one:
- ○ **961**
- ○ **930**
- ○ **900**

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The Statue of Liberty's Nose

The Statue of Liberty in New York City has a nose that is 4 feet 6 inches long.
What is the approximate length of one of her arms?

Change 4 feet 6 inches to all inches...
4 feet = 48 inches
plus 6 inches
= 54 inches

	Statue	You
Nose	54	
Arm	x	

1. Solve the problem.

2. Pick two other body parts and find the approximate length that these parts should be on the Statue of Liberty.

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Solve $\triangle ABC$ using the diagram and the given measurements.

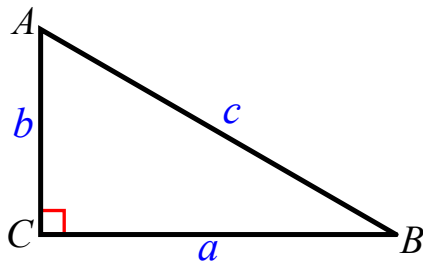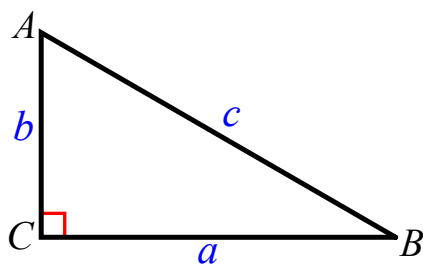$A = ----\underline{\hspace{1cm}}$ $a = ----\underline{\hspace{1cm}}$

$B = ----\underline{\hspace{1cm}}$ $b = ----\underline{\hspace{1cm}}$

$C = ----\underline{\hspace{1cm}}$ $c = ----\underline{\hspace{1cm}}$

1. $B = 24°, \ a = 8$

2. $A = 19°, \ b = 4$

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Solve $\triangle ABC$ using the diagram and the given measurements.

$A = \text{----}\rule{2cm}{0.4pt}$ $a = \text{----}\rule{2cm}{0.4pt}$

$B = \text{----}\rule{2cm}{0.4pt}$ $b = \text{----}\rule{2cm}{0.4pt}$

$C = \text{----}\rule{2cm}{0.4pt}$ $c = \text{----}\rule{2cm}{0.4pt}$

3. $A = 29°, \ b = 21$

4. $B = 65°, \ c = 12$

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Solve $\triangle ABC$ using the diagram and the given measurements.

$A = \text{----}\rule{2cm}{0.4pt}$ $a = \text{----}\rule{2cm}{0.4pt}$

$B = \text{----}\rule{2cm}{0.4pt}$ $b = \text{----}\rule{2cm}{0.4pt}$

$C = \text{----}\rule{2cm}{0.4pt}$ $c = \text{----}\rule{2cm}{0.4pt}$

5. $A = 37°, \ c = 22$

6. $B = 41°, \ c = 18$

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Jamie is 6' tall. Find the length of his shadow if the angle of elevation of the sun is 30°.
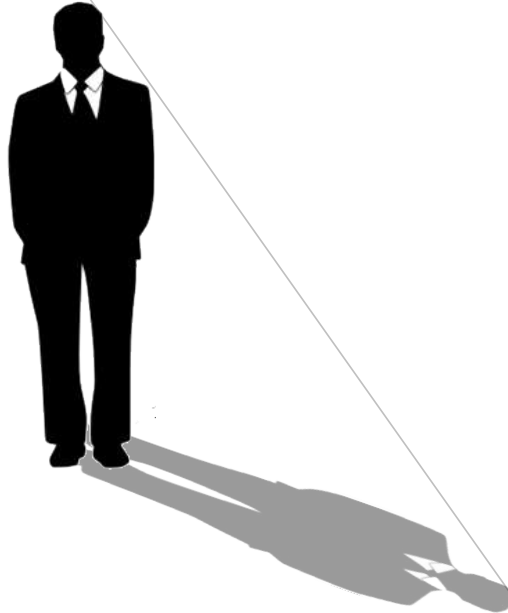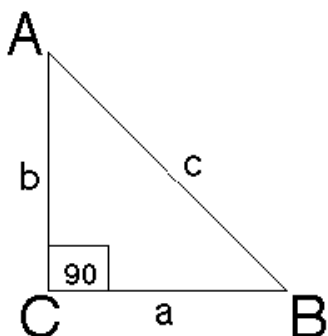
Week 1, Friday

1. Warm-up
2. ICA
3. Extra Practice

I will begin preparing to pass my math AIMS test.

I will discuss with the members of my group the reasons I have chosen my answers to multiple choice questions.

I will share strategies for answering multiple choice question.

Warm-up: Answer the following questions.

1. Given right triangle ABC with
   $a = 9, b = 12, c = 15$
   Calculate cos A

2. Given right triangle ABC with
   $a = 10, b = 3, c = 10.44$
   Calculate sin B

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