

The White Board

MATERIALS NEEDED

- Graph Paper
- Lined Paper
- Blank Paper
- Calculator

KEY ASSIGNMENTS

- Test Questions

ASSESSMENT (Place ✓ for each requirement)

All Assignments are Complete _____

Test Questions Passed with 100% _____

Final Unit Assessment _____ (P/NP)

P=Pass

NP=No Pass

Tech in Testing
Unit 2

Name: _____

Teacher: _____

Power Standard #1

A.REI 3: I can solve linear equations and inequalities in one variable.

Solving Equations: Take notes on the following example problems from the video

Watch: <https://goo.gl/AADpp2>

Example 1: $2x + 3 = 5x - 2$

Watch: <https://goo.gl/Bejk9P>

Example 2: $20 - 7x = 6x - 6$

PRACTICE PROBLEMS:

1. $4x + 2x + 1 = -19$

2. $-(x + 4) = 8$

3. $5x + 34 = -2(1 - 7x)$

4. $-3.4(2.7x - 1.7) - 1.2x = 47.3$

Power Standard #2

A.REI 3.1: I can solve and graph the solutions to a linear inequality in one variable.

Solving Inequalities: Take notes on the following example problems from the videos

Watch: <https://goo.gl/UpSMzc>

Example 1: $-3p - 7 < p + 9$

Watch: <https://goo.gl/G5tpyz>

Example 2: $5x + 7 > 3(x + 1)$

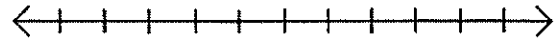
Symbol	Description	Graphing on a Number Line
$<$	<i>Less than</i>	\circ <i>Open Dot</i>
$>$	<i>Greater than</i>	\circ <i>Open Dot</i>
\leq	<i>Less than or equal to</i>	\bullet <i>Closed Dot</i>
\geq	<i>Greater than or equal to</i>	\bullet <i>Closed Dot</i>
\neq	<i>Not equal to</i>	\circ <i>Open Dot</i>

Practice Problems:

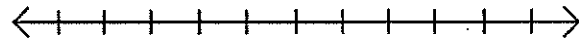
1. $3 < -5z + 2z$



3. $5(6 + 3m) + 7 \geq 127$



2. $6 - 4(6x + 7) \geq 122$



4. $-8x + 2x - 16 < -5x + 7x$



TEST QUESTIONS:



Complete the following SBAC Style Questions

1. Which inequality represents all possible solutions of $-3n < -18$?

A. $n < 54$

B. $n > 6$

C. $n < 6$

D. $n > 54$

2. Which inequality represents all possible solutions of $28 - y \geq 7(y - 4)$?

A. $y \leq 7$

B. $y \leq 4$

C. $y \geq 4$

D. $y \geq 7$

3. Which equation represents the solution of $120 = 12(-2 + 5x)$

A. $x = 2$

B. $x = 4$

C. $x = 85$

D. $x = -4$

Power Standard #3

F.IF 1: I can write an explicit function from a table and evaluate values from a graph.

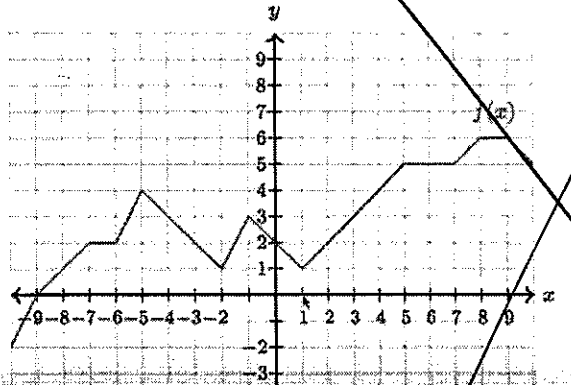
Solving Equations: Take notes on the following example problems from the video

Watch: <https://goo.gl/s8XYgu>

Example 1:

What is the input value other than -5 for which $f(x) = f(-5)$?

$x =$



Watch: <https://goo.gl/8ujxC7>

Example 2:

n	1	2	3	4
$f(n)$	12	5	-2	-9

n	1	2	3	4
$f(n)$	-100	-50	0	50

Power Standard #5

A.APR 1: I can identify, add, subtract, and multiply polynomial expressions.

Polynomials: Take notes on the following example problems from the video

Watch: <https://goo.gl/lt3mPN>

Example 1: $3x^2 - 8x + 7 + 2x^3 - x^2 + 8x - 3$

Watch: <https://goo.gl/m9bbFZ>

Example 2: $(4x^2y - 3x^2 - 2y) + (8xy - 3x^2 + 2x^2y + 4)$

Watch: <https://goo.gl/xbOI1M>

Example 3: $(4x^2y - 3xy + 25) - (9y^2x + 7xy - 20)$

Watch: <https://goo.gl/welzpd>

Example 4: $(10a - 3)(5a^2 + 7a - 1)$

Practice Problems:

Solve the following systems of equations.

1. $2x^2 + 7 + 16x^2 - 9x^2 + 8x - 3$

2. $(8x + 7) - (-9x^2 + 5x - 3)$

3. $(8x + 5)(3x - 7)$

4. $(x + 4)(3x^2 + 9x - 1)$

5. $(-7x^2 - 8x) + (11x^2 + 13)$

6. $(-3x^2 - 4) + (5x^2 - 9x^2)$

7. $(-7x^2 - 8) - (11x^2 + 13x)$

8. $(2x + 6)(5x^2 + 2x - 7)$

TEST QUESTIONS:



Complete the following SBAC Style Questions

← → ↶ ↷ ✖													
1	2	3	x	y									
4	5	6	+	-	*	÷							
7	8	9	<	≤	=	≥	>						
0	.	-	$\frac{\square}{\square}$	\square^\square	\square_\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π	i		
			sin	cos	tan	arcsin	arccos	arctan					

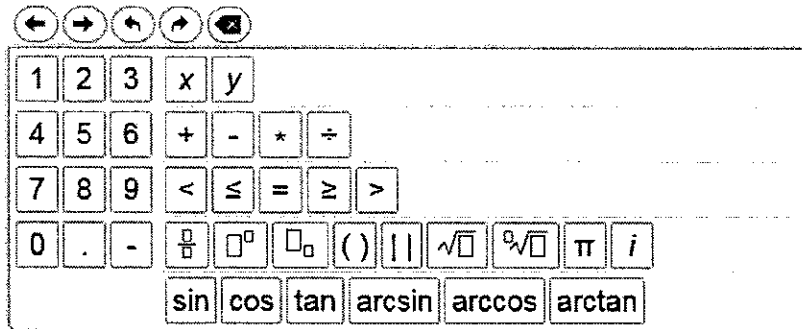
TIP:
Remember the
calculator from
Unit 1.



1. Using the buttons above, enter an expression equivalent to $(-7x^2 + 4x - 3) + (6x - 15)$ using the fewest number of possible terms.

2. Using the buttons above, enter an expression equivalent to $(x + 2) - (-9x^2 + 5x - 3)$ using the fewest number of possible terms.

3. Using the buttons above, enter an expression equivalent to $(3x^2 - 8x - 24) + (13x + 4) - (9x + 6)$ using the fewest number of possible terms.



TIP:
Remember the calculator from Unit 1.



- Using the buttons above, enter an expression equivalent to $(x + 3)(-7x^2 + 2x - 6)$ using the fewest number of possible terms.

- Using the buttons above, enter an expression equivalent to $(2x + 5y)(-4x^2 + 2y - 3)$ using the fewest number of possible terms.

- Using the buttons above, enter an expression equivalent to $(7x + 8y)(-6x^2 + 4y - 9)$ using the fewest number of possible terms.

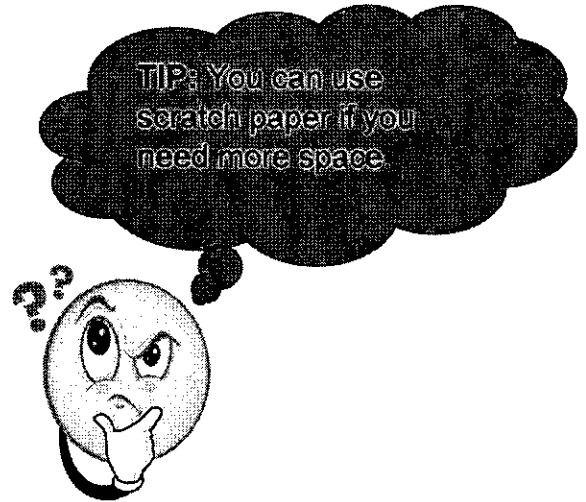
Power Standard #7

G.SRT 6: I can define trigonometric ratios.

Setting up trigonometric ratios: Take notes on the following example problems from the video.

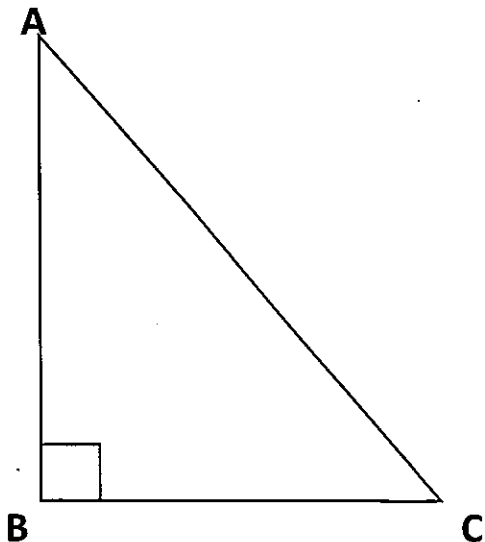
Watch: <https://goo.gl/8EZVRC>

Example 1:

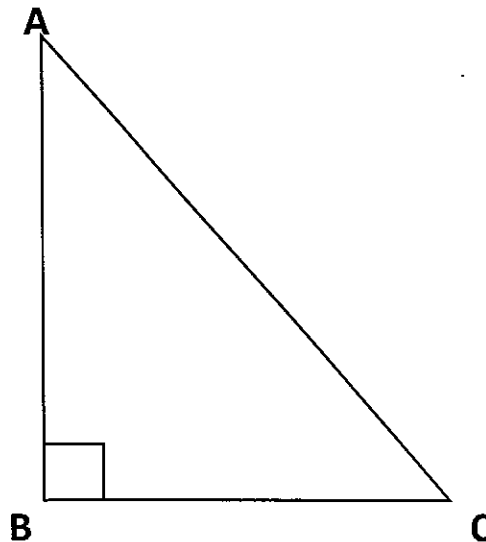


PRACTICE PROBLEMS:

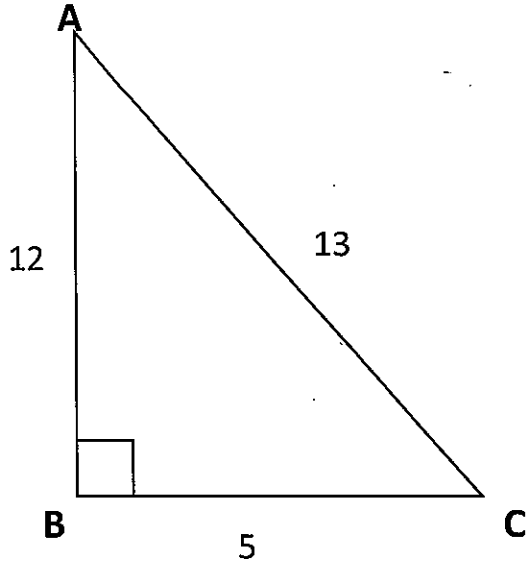
1. Label the opposite, adjacent, and hypotenuse for this triangle using A as the reference angle.



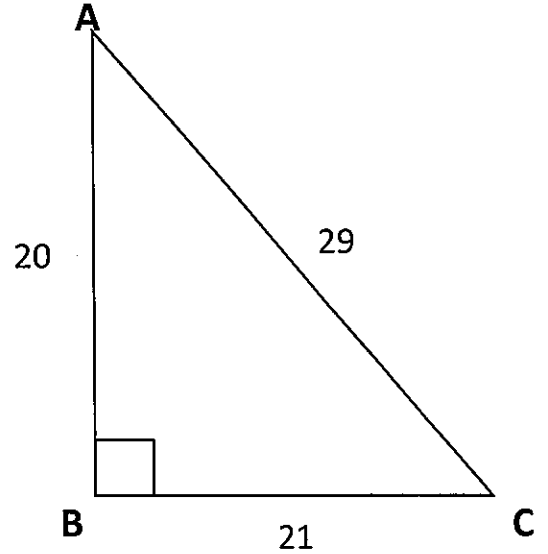
2. Label the opposite, adjacent, and hypotenuse for this triangle using C as the reference angle.



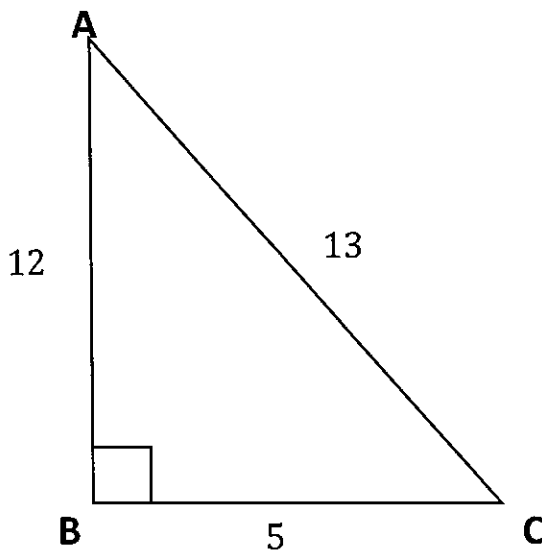
3) Label the opposite, adjacent, and hypotenuse for this triangle using A as the reference angle. Then write an equation to represent the sine of A .



4) Label the opposite, adjacent, and hypotenuse for this triangle using C as the reference angle. Then, write an equation to represent the cosine of C .



TEST QUESTIONS:
Consider this right triangle.



- 1) Enter the ratio equivalent to $\sin(a)$:

- 2) Enter the ratio equivalent to $\cos(a)$:

- 3) Enter the ratio equivalent to $\tan(a)$:

Power Standard #8

G.SRT 8: I can solve problems with right triangles involving the Pythagorean Theorem and trigonometric ratios.

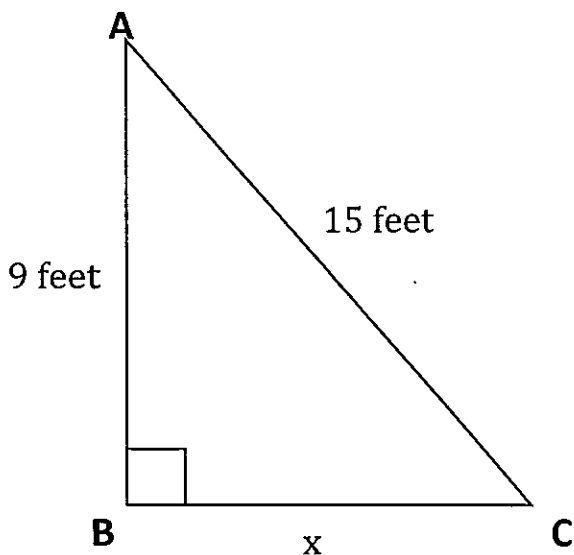
Solving for sides using Pythagorean Theorem: Take notes on the following example problems from the video.

Watch: <https://goo.gl/hyt4C8>

Example 1:

Example 2:

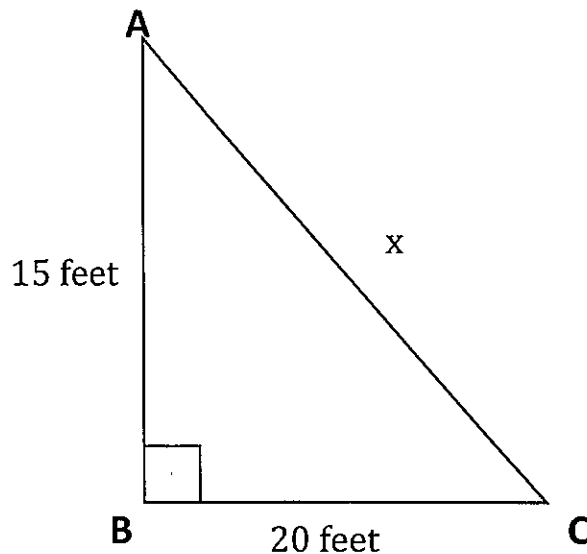
PRACTICE PROBLEMS: Solve for x in the following triangles. Then, create the equation asked for and solve for the specific value.



1) Solve for x .

2) Create an equation for the $\tan(C)$ using all numbers (no variable).

3) Solve this equation for "9".

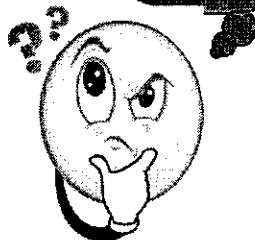


4) Solve for x .

5) Create an equation for $\sin(A)$ using all numbers (no variable).

6) Solve this equation for "20".

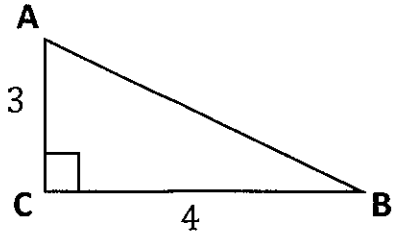
TIP: You won't need a calculator for the trig functions.



TEST QUESTIONS:



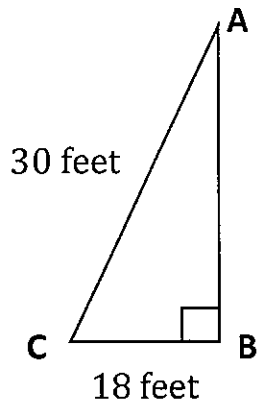
1) Consider this right triangle.



Determine if each expression is equivalent to the length of \overline{AC} . Select Yes or No for each expression.

	Yes	No
$5\sin(B)$	<input type="checkbox"/>	<input type="checkbox"/>
$5\cos(A)$	<input type="checkbox"/>	<input type="checkbox"/>
$4\tan(A)$	<input type="checkbox"/>	<input type="checkbox"/>
$4\tan(B)$	<input type="checkbox"/>	<input type="checkbox"/>

2) Consider this right triangle.



Determine whether each expression can be used to find the length of side \overline{AB} . Select Yes or No for each expression.

	Yes	No
$30\sin(A)$	<input type="checkbox"/>	<input type="checkbox"/>
$18\tan(C)$	<input type="checkbox"/>	<input type="checkbox"/>
$30\cos(A)$	<input type="checkbox"/>	<input type="checkbox"/>
$18\tan(A)$	<input type="checkbox"/>	<input type="checkbox"/>