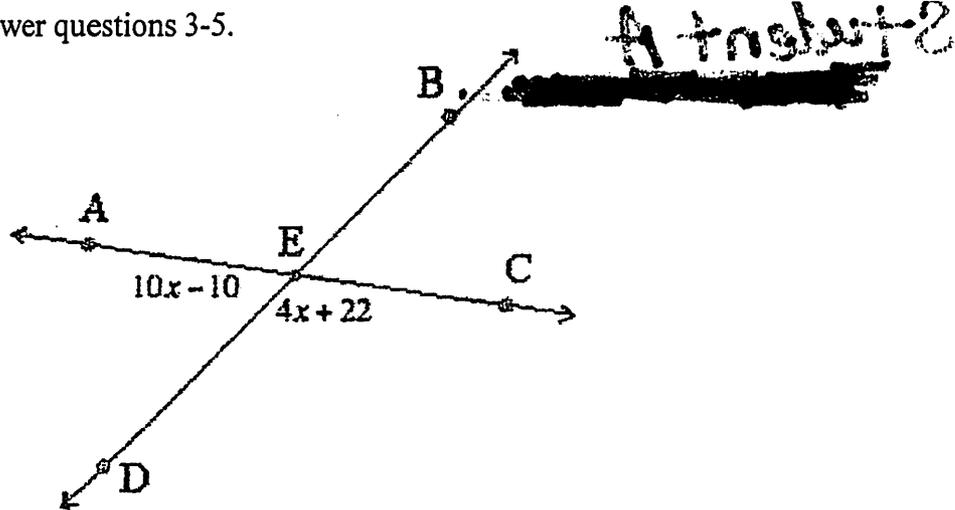


Use the diagram below to answer questions 3-5.



3. Which of the following equations could be used to solve for x in the diagram above (circle all that apply)?

$10x - 10 = 4x + 22$	$10x - 10 + 4x + 22 = 180$
$5x - 5 + 2x + 11 = 90$	$4x - 158 = 10x - 10$

4. Explain how you made your decisions

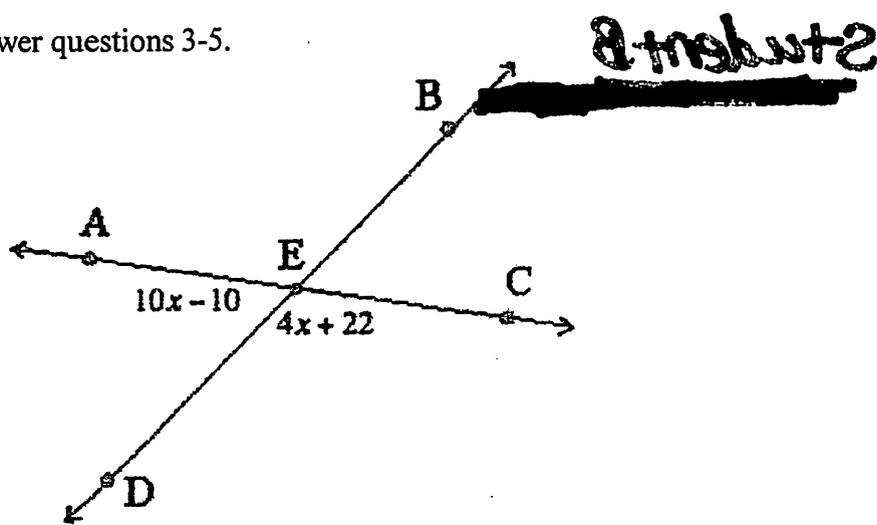
I made my first decision by guessing and then I solved the other equations and there was only 1 with the same solution so I chose it.

5. Solve for x in the diagram above.

$$\begin{array}{r}
 10x - 10 + 4x + 22 = 180 \\
 \hline
 10x - 10 + 4x = 158 \\
 +10 \qquad +10 \\
 \hline
 10x + 4x = 168 \\
 14x = 168 \\
 \hline
 14 \quad 14 \\
 x = 12
 \end{array}$$

$$\begin{array}{r}
 5x - 5 + 2x + 11 = 90 \\
 +5 \qquad +5 \\
 \hline
 5x + 2x + 11 = 95 \\
 -11 \quad -11 \\
 \hline
 7x = 84 \\
 \hline
 7 \quad 7 \\
 x = 12
 \end{array}$$

Use the diagram below to answer questions 3-5.



3. Which of the following equations could be used to solve for x in the diagram above (circle all that apply)?

$10x - 10 = 4x + 22$	$10x - 10 + 4x + 22 = 180$
$5x - 5 + 2x + 11 = 90$	$4x - 158 = 10x - 10$

4. Explain how you made your decisions

I made this decision because you will have to make an equation that will equal 180° since the angle is supplementary.

5. Solve for x in the diagram above.

$$\begin{array}{r|l}
 10x - 10 + 4x + 22 & 180 \\
 14x - 10 + 22 & 180 \\
 \quad + 10 & + 10 \\
 \hline
 14x + 22 & 190 \\
 \quad - 22 & - 22 \\
 \hline
 14x & 168 \\
 \frac{14}{14} & \frac{168}{14} \\
 \hline
 x & 12
 \end{array}$$

$$10(12) - 10 + 4(12) + 22 = 180$$

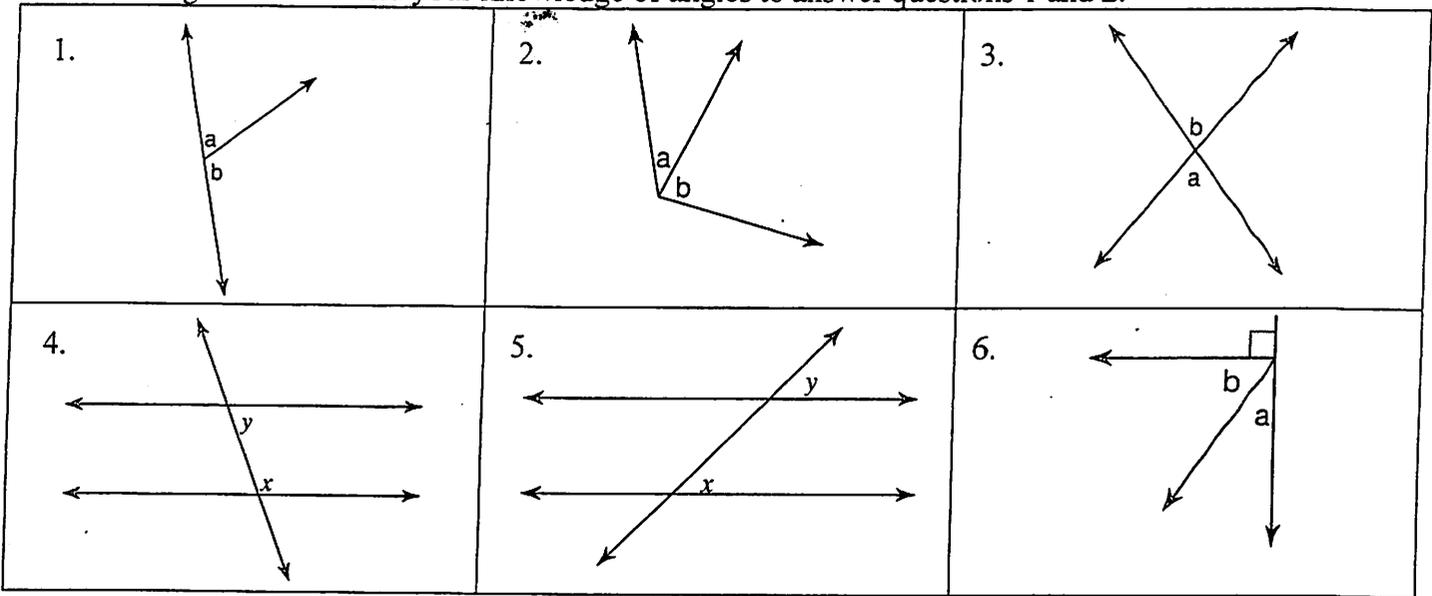
Student Pre-Assessment

Name: _____
Scholars' Academy

Algebra I

Date: 10/2/13
Class: 808

Use the diagrams below and your knowledge of angles to answer questions 1 and 2.



1. Which diagram or diagrams represent supplementary angle relationships? 1

How did you determine which diagrams represented supplementary angle relationships?

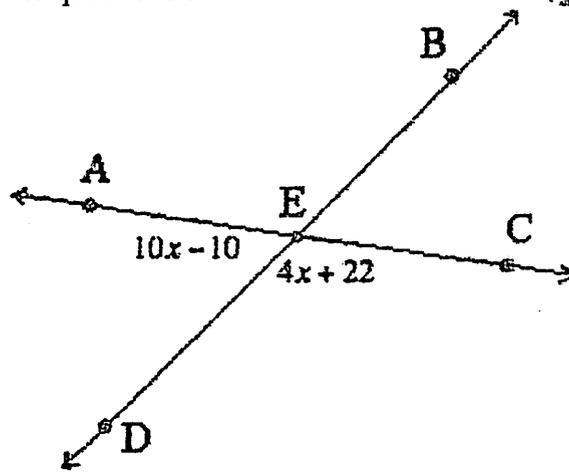
In diagram 1, $a+b$ is equivalent to a straight line.
A straight line is equivalent to 180° . The sum of two
supplementary angles is 180 degrees, therefore diagram 1
displays a supplementary angle relationship.

2. Which diagram or diagrams represent congruent angle relationships? 3

How did you determine which diagrams represented congruent angle relationships?

Congruent angles are angles that are equivalent
or the same, diagram 3 shows 3 angles that are
equivalent.

Use the diagram below to answer questions 3-5.



3. Which of the following equations could be used to solve for x in the diagram above (circle all that apply)?

$10x - 10 = 4x + 22$	$10x - 10 + 4x + 22 = 180$
$5x - 5 + 2x + 11 = 90$	$4x - 158 = 10x - 10$

4. Explain how you made your decisions

The sum of two supplementary angles is 180 degrees.
 $\angle AED$ and $\angle CED$ both form a straight line, a straight line is equivalent to 180 degrees, therefore $10x - 10 + 4x + 22 = 180$ degrees.

5. Solve for x in the diagram above.

$$10x - 10 + 4x + 22 = 180$$

$$10x - 10 = 90$$

+10

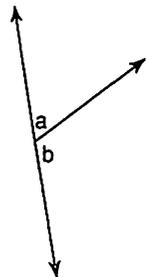
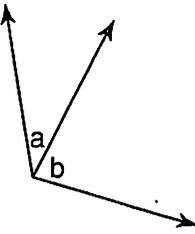
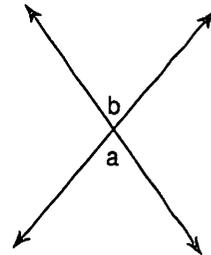
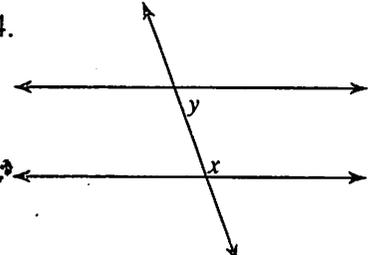
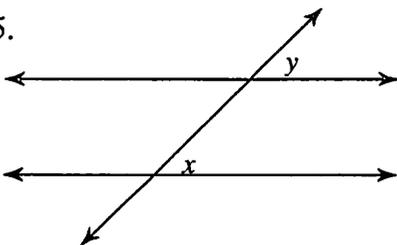
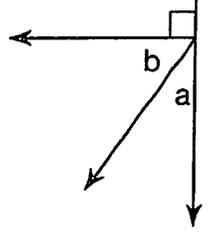
Student D Pre-Assessment

Name: [REDACTED]
Scholars' Academy

Algebra I

Date: 10/21/13
Class: 808

Use the diagrams below and your knowledge of angles to answer questions 1 and 2.

1. 	2. 	3. 
4. 	5. 	6. 

1. Which diagram or diagrams represent supplementary angle relationships? 1, 2, 6

How did you determine which diagrams represented supplementary angle relationships?

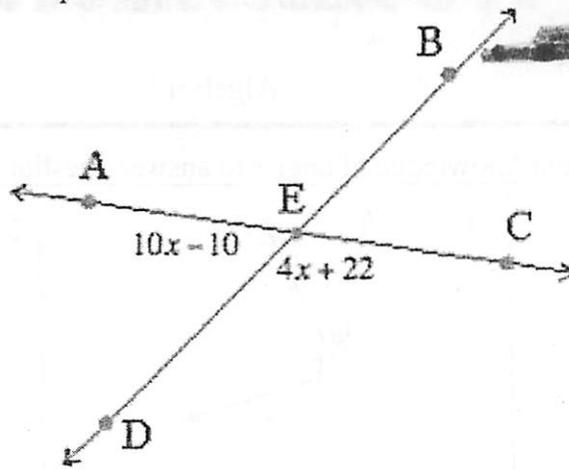
A supplementary angle equals up to 180° .
(contains 2 angles)

2. Which diagram or diagrams represent congruent angle relationships? 4, and 5

How did you determine which diagrams represented congruent angle relationships?

These angles do not cross, or meet. They
just keep on going in one direction.

Use the diagram below to answer questions 3-5.



3. Which of the following equations could be used to solve for x in the diagram above (circle all that apply)?

$10x - 10 = 4x + 22$	$10x - 10 + 4x + 22 = 180$
$5x - 5 + 2x + 11 = 90$	$4x - 158 = 10x - 10$

4. Explain how you made your decisions

5. Solve for x in the diagram above.

$$10x - 10 = 4x + 22$$

$$10x - 4x = 10 + 22$$

$$6x = 32$$

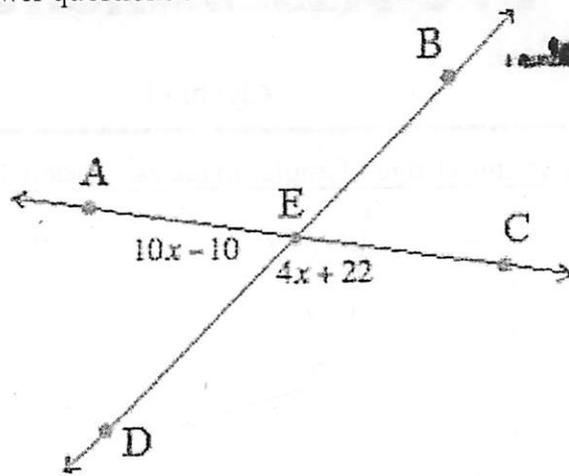
$$\frac{6x}{6} = \frac{32}{6}$$

$$x = 5.3$$

check $10(5.3) - 10 = 43$

$$4(5.3) + 22 = 43.2 \rightarrow 43$$

Use the diagram below to answer questions 3-5.



$(10x-10) + (4x+22) =$

3. Which of the following equations could be used to solve for x in the diagram above (circle all that apply)?

$10x - 10 = 4x + 22$	$10x - 10 + 4x + 22 = 180$
$5x - 5 + 2x + 11 = 90$	$4x - 158 = 10x - 10$

4. Explain how you made your decisions

I know that angle $\angle AED$ and angle $\angle CED$ are supplementary, so together they equal 180° . This means that $10x-10+4x+22$ should equal 180. I also chose $5x-5+2x+11=90$ because if you divide every set of terms by 2 ($10x \div 2 = 5x$, $10 \div 2 = 5$, $4x \div 2 = 2x$, $22 \div 2 = 11$, $180 \div 2 = 90$) you get $5x-5+2x+11=90$ which makes x equal to the same value as in $10x-10+4x+22=180$.

5. Solve for x in the diagram above.

$$10x - 10 + 4x + 22 = 180$$

$$14x + 12 = 180$$

$$\underline{-12} \quad \underline{-12}$$

$$14x = 168$$

$$\underline{14} \quad \underline{14}$$

$$x = 12$$

$$x = 12$$

$$5x - 5 + 2x + 11 = 90$$

$$7x + 6 = 90$$

$$\underline{-6} \quad \underline{-6}$$

$$7x = 84$$

$$\underline{7} \quad \underline{7}$$

$$x = 12$$

* Both $x = 12$ so they are equivalent! *

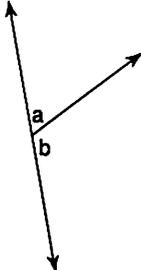
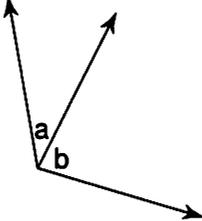
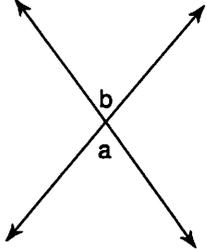
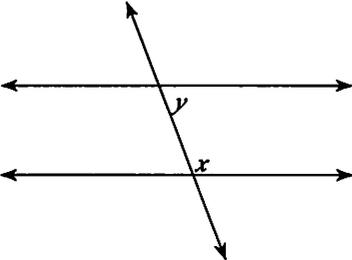
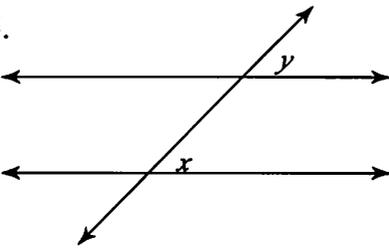
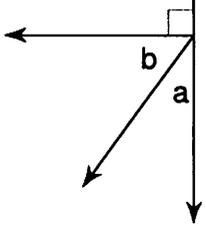
Pre-Assessment

Name: _____
Scholars' Academy

Algebra I

Date: _____
Class: _____

Use the diagrams below and your knowledge of angles to answer questions 1 and 2.

<p>1. </p>	<p>2. </p>	<p>3. </p>
<p>4. </p>	<p>5. </p>	<p>6. </p>

1. Which diagram or diagrams represent supplementary angle relationships? 1, 4

How did you determine which diagrams represented supplementary angle relationships?

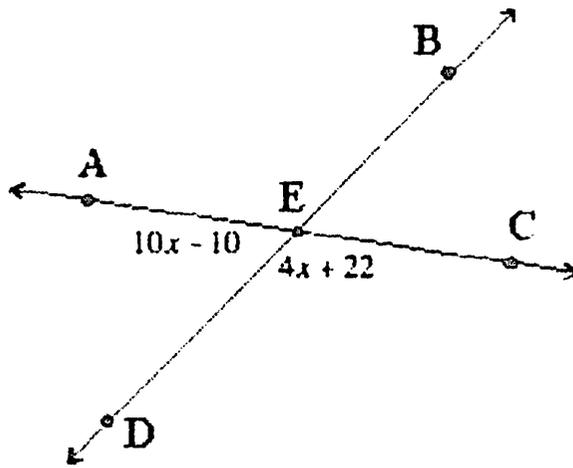
In diagram 1 and 4 these are pairs of adjacent ~~triangles~~ ~~or~~ of angles on the same line

2. Which diagram or diagrams represent congruent angle relationships? 3, 5

How did you determine which diagrams represented congruent angle relationships?

In diagram 3 the angles are vertical
In diagram 5 the angles are corresponding in the same position and they are congruent.

Use the diagram below to answer questions 3-5.



3. Which of the following equations could be used to solve for x in the diagram above (circle all that apply)?

$10x - 10 = 4x + 22$	$10x - 10 + 4x + 22 = 180$
$5x - 5 + 2x + 11 = 90$	$4x - 158 = 10x - 10$

4. Explain how you made your decisions

$$10x - 10 + 4x + 22 = 180$$

The 2 equations are congruent

$5x - 5 + 2x + 11 = 90$ is the original equation \div by 2

5. Solve for x in the diagram above.

$$10x - 10 + 4x + 22 = 180$$

$$14x - 10 + 22 = 180$$

$$14x + 12 = 180$$

$$-12 \quad -12$$

$$14x = 168$$

$$x = 12$$