Algebra I

Mrs. Grubb

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Algebra 1: Mrs. Grubb

Name _____ ID: 1

Order of Operations

Date 1st assignment Period ____

Evaluate each expression.

1) $4 + 4 \times 6$

2) $4 \div 2 + 3$

3) $(12 \div 4)^3$

4) $2 \times 3 - 1$

5) $6 + 4 - 6$

6) $15 \div 3 \times 5$

7) $(9 \times 2) \div 3$

8) $6(4 - 1)$

9) $5^2 - 6$

10) $6 \times 3 - 3$

11) $(5 + 7) \div 3$

12) $6 \div 3 + 6$

Algebra I; Mrs. Grubb

Name_____ ID: 1

Assignment

Date 2nd assignment Period____

Solve each equation.

1) $-4+\frac{r}{5}=-2$

2) $\frac{v}{6}+5=6$

3) $1-n=-5$

4) $-4+\frac{k}{2}=-1$

5) $4-3x=-2$

6) $-3+\frac{m}{2}=-7$

7) $\frac{x}{2}+3=8$

8) $2-m=6$

9) $-4x+5=21$

10) $4x+4=-24$

Alg. II

Grubb

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Algebra 2: Mrs. Grubb

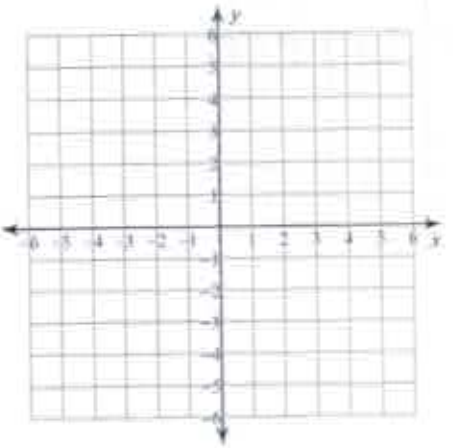
Name _____

Date 1st assignment Period ____

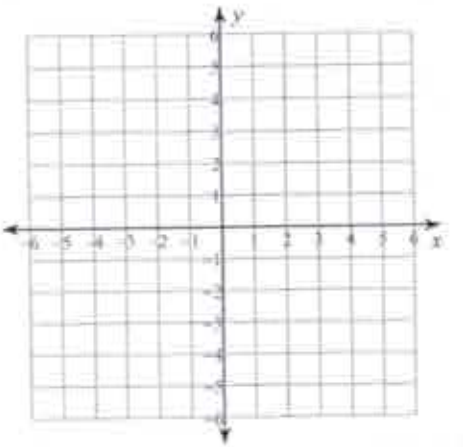
Assignment

Sketch the graph of each line.

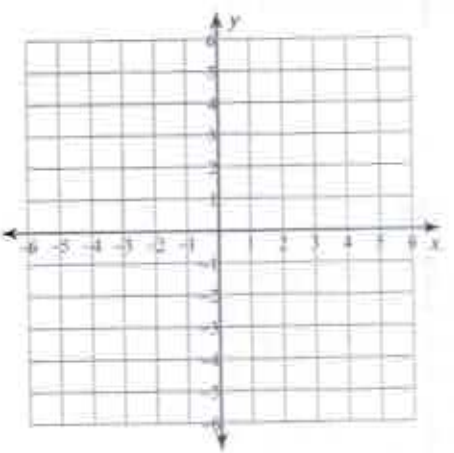
1) $5 - y = 0$



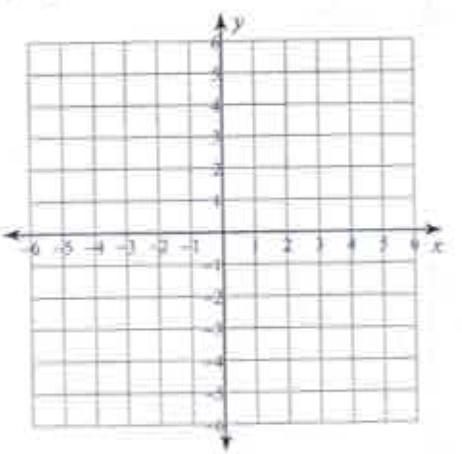
2) $0 = -y + 4 - 2x$



3) $4x = y - 3$



4) $-y - 5 + 4x = 0$



Algebra 2 : Mrs. Grubb

Name _____ ID: 1

Assignment

Date 2nd assignment Period ____

Solve each equation.

1) $-82 = 2(6n - 8) - n$

2) $95 = 5(4r - 5)$

3) $7(7r - 2) + 4 = -108$

4) $7(-7x - 5) = -84$

5) $-451 = 7(8a - 5) - 4a$

6) $-90 = 6(-2n - 7) + 4n$

7) $274 = -8(6x + 6) + 2x$

8) $-200 = -8(3x + 4)$

9) $-101 = 7m + 2(4m + 2)$

10) $6(1 + 3k) = -102$

11) $8(8 - 6x) = -272$

12) $-5m - 5(1 + 8m) = -95$

NAME _____ DATE _____ PERIOD Algebra II; Mrs. Grubb 3rd assignment

2-4 Study Guide and Intervention

Writing Linear Equations

Forms of Equations

Slope-Intercept Form of a Linear Equation	$y = mx + b$, where m is the slope and b is the y-intercept
Point-Slope Form of a Linear Equation	$y - y_1 = m(x - x_1)$, where (x_1, y_1) are the coordinates of a point on the line and m is the slope of the line

Example 1 **Write an equation in slope-intercept form for the line that has slope −2 and passes through the point (3, 7).**

Substitute for m, x, and y in the slope-intercept form.

$y = mx + b$	Slope-intercept form
$7 = (-2)(3) + b$	$(x, y) = (3, 7), m = -2$
$7 = -6 + b$	Simplify.
$13 = b$	Add 6 to both sides.

The y-intercept is 13. The equation in slope-intercept form is $y = -2x + 13$.

Example 2 **Write an equation in slope-intercept form for the line that has slope $\frac{1}{3}$ and x-intercept 5.**

$y = mx + b$	Slope-intercept form
$0 = \left(\frac{1}{3}\right)(5) + b$	$(x, y) = (5, 0), m = \frac{1}{3}$
$0 = \frac{5}{3} + b$	Simplify.
$-\frac{5}{3} = b$	Subtract $\frac{5}{3}$ from both sides.

The y-intercept is $-\frac{5}{3}$. The slope-intercept form is $y = \frac{1}{3}x - \frac{5}{3}$.

Exercises

Write an equation in slope-intercept form for the line described.

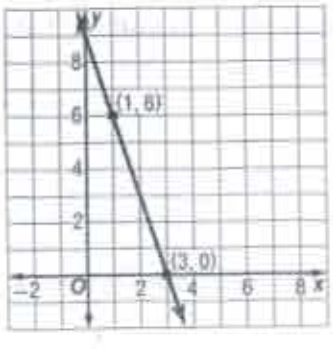
1. slope −2, passes through (−4, 6)

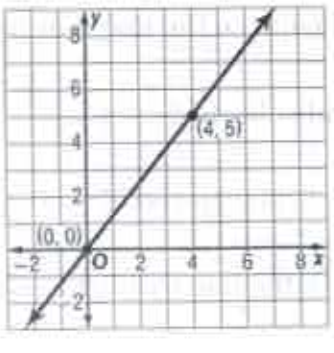
2. slope $\frac{3}{2}$, y-intercept 4

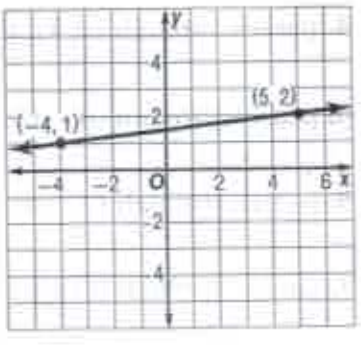
3. slope 1, passes through (2, 5)

4. slope $-\frac{13}{5}$, passes through (5, −7)

Write an equation in slope-intercept form for each graph.

5. 

6. 

7. 

Lesson 2-4

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3.

Environmental Science. Mrs. Grubb

Name _____ Class _____ Date 1st assignment

Skills Worksheet

Active Reading

Section: Energy Resources and Fossil Fuels

Read the passage below and answer the questions that follow.

When petroleum fuels are burned, they release pollutants. Internal combustion engines in vehicles that burn gasoline pollute the air in many cities. These pollutants contribute to the formation of smog and cause health problems. Emissions regulations and technology such as catalytic converters have reduced air pollution in many areas. However, in developing countries, cars are generally older, and the gasoline that they burn contains significantly more sulfur, a pollutant that contributes to acid precipitation. Many scientists also think that the carbon dioxide released from burning petroleum fuels contributes to global warming.

Oil spills are another potential environmental problem of oil use. In recent years, new measures have been taken to prevent oil spills from tankers. These measures include requiring that new tankers be double-hulled so that puncturing the outer hull does not allow the oil to leak out. Also, response times to clean up oil spills have improved. While oil spills are dramatic, much more oil pollution comes from everyday sources, such as leaking cars. However, measures to reduce everyday contamination of our waterways from oil lag far behind the efforts made to prevent large spills.

IDENTIFYING MAIN IDEAS

One reading skill is the ability to identify the main idea of a passage. The main idea is the main focus or key idea. Frequently, a main idea is accompanied by supporting information that offers detailed facts about the main idea.

Read each question and write the answer in the space provided.

1. What are two potential hazards associated with oil use?

_____

2. What is one reason the air in cities is often polluted?

_____

3. What factor might be contributing to global warming?

_____

4. What measures have been taken to prevent oil spills from tankers?

_____

5. What does the author note about oil spill cleanup?

_____

Environmental Science: Mrs. Grubb

Name _____ Class _____ Date 2nd assignment

Skills Worksheet

Active Reading

Section: Renewable Energy Today

Read the passage below and answer the questions that follow.

Solar cells, also called *photovoltaic cells*, convert the sun's energy into electricity. Solar cells were invented more than 120 years ago, and now they are used to power everything from calculators to space stations. Solar cells have no moving parts, and they run on nonpolluting power from the sun. So why don't solar cells meet all of our energy needs? A solar cell produces a very small electrical current. So meeting the needs of a small city would require covering hundreds of acres with solar panels. Solar cells also require extended periods of sunshine to produce energy. This energy is stored in batteries, which supply electricity when the sun is not shining.

Despite these limitations, energy production from solar cells has doubled every four years since 1985. Solar cells have become increasingly efficient and less expensive. Solar cells have great potential for use in developing countries, where energy consumption is minimal and electricity networks are limited. Currently, solar cells provide energy for more than 1 million households in the developing world.

IDENTIFYING MAIN IDEAS

One reading skill is the ability to identify the main idea of a passage. The main idea is the main focus or key idea. Frequently, a main idea is accompanied by supporting information that offers detailed facts about main ideas.

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

_____ 1. Solar cells convert the sun's energy into
- **a.** light.
- **b.** heat.
- **c.** electricity.
- **d.** pollution.

_____ 2. What factor regarding solar cells has doubled every four years since 1985?
- **a.** the number of solar cells produced
- **b.** the amount of energy produced by solar cells
- **c.** the number of people who use solar cells
- **d.** the price of solar cells

_____ 3. Solar cells have great potential for use in
- **a.** cities.
- **b.** private homes.
- **c.** factories.
- **d.** developing countries.

Environmental Science : Mrs. Grubb

Name _____ Class _____ Date 3rd assignment

Skills Worksheet

Active Reading

Section: Alternative Energy and Conservation

Read the passage below and answer the questions that follow.

The average household in the United States spends more than $1,200 on energy bills each year. Unfortunately, much of that energy is wasted. Most of the energy lost from homes is lost through poorly insulated windows, doors, walls, and the roof. So a good way to increase energy efficiency is to add to the insulation of a home. Replacing old windows with new, high-efficiency windows can reduce your energy bill by 15 percent. Two of the best places to look for ways to conserve energy are doors and windows. Much of the energy lost from a home escapes as hot air in winter or cold air in summer passes through gaps around doors and windows. Hold a ribbon up to the edges of doors and windows. If it flutters, you've found a leak. Sealing these leaks with caulk or weather stripping will help conserve energy. There are dozens of other ways to reduce energy use around the home.

IDENTIFYING MAIN IDEAS

One reading skill is the ability to identify the main idea of a passage. The main idea is the main focus or key idea. Frequently, a main idea is accompanied by supporting information that offers detailed facts about main ideas.

In the space provided, write the letter of the term or phrase that best completes each statement.

_____ **1.** The average household in the United States spends $1,200 a year on
- **a.** repairs to the home.
- **b.** windows and doors.
- **c.** insulation.
- **d.** energy bills.

_____ **2.** Much of the energy in homes in the United States is
- **a.** efficient.
- **b.** wasted.
- **c.** conserved.
- **d.** reduced.

_____ **3.** People can increase energy efficiency in their homes by
- **a.** keeping doors and windows closed at all times.
- **b.** replacing their roofs.
- **c.** adding to the insulation in their homes.
- **d.** using more hot air in winter and more cold air in summer.

Transitional
Math

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Transitional Math: Mrs. Grubbs

Algebra 2 Name _____ ID: 1

Assignment Date 1st assignment Period ____

Simplify. Write "undefined" for expressions that are undefined.

1) $\begin{bmatrix} -5 \\ 2 \end{bmatrix} \cdot \begin{bmatrix} -4 & 3 & 4 \end{bmatrix}$

2) $\begin{bmatrix} 1 & -3 \\ 2 & -6 \end{bmatrix} \cdot \begin{bmatrix} -6 & -6 & -6 \\ 4 & 5 & -2 \end{bmatrix}$

3) $\begin{bmatrix} -1 & 2 \\ -4 & 0 \end{bmatrix} \cdot \begin{bmatrix} 4 & -2 \\ -1 & -2 \\ 6 & 3 \end{bmatrix}$

4) $\begin{bmatrix} -4 & 6 & -5 \\ -6 & -3 & -6 \end{bmatrix} \cdot \begin{bmatrix} 2 & -1 \\ -2 & -3 \\ -4 & -3 \end{bmatrix}$

5) $\begin{bmatrix} 2 & 6 & -6 \\ -3 & -6 & 4 \end{bmatrix} \cdot \begin{bmatrix} -2 \\ -2 \\ -5 \end{bmatrix}$

6) $\begin{bmatrix} 2 & -6 & -1 \\ 0 & 1 & 1 \end{bmatrix} \cdot \begin{bmatrix} 5 & 6 \\ 4 & -2 \\ 4 & -6 \end{bmatrix}$

Transitional Math: Mrs. Grubb

Algebra 2 Name _____ ID: 1

Assignment Date 2nd assignment Period ____

Simplify. Write "undefined" for expressions that are undefined.

1) $\begin{bmatrix} 6 \\ 2 \end{bmatrix} + \begin{bmatrix} 5 \\ 0 \end{bmatrix}$

2) $\begin{bmatrix} -4 & 2 & 3 \\ 0 & -5 & -3 \end{bmatrix} - \begin{bmatrix} -4 & -1 & -6 \\ -1 & 5 & 0 \end{bmatrix}$

3) $\begin{bmatrix} 1 \\ 6 \\ 0 \\ 2 \end{bmatrix} + \begin{bmatrix} 6 \\ 6 \\ -6 \end{bmatrix}$

4) $\begin{bmatrix} 5 & 4 \end{bmatrix} + \begin{bmatrix} -4 & -2 \end{bmatrix}$

5) $\begin{bmatrix} -1 & -3 \end{bmatrix} + \begin{bmatrix} 4 & -5 \end{bmatrix}$

6) $\begin{bmatrix} 3 & -1 & 4 \\ -5 & -5 & 6 \end{bmatrix} - \begin{bmatrix} -6 & 4 & 2 \\ -3 & -5 & -1 \end{bmatrix}$

7) $\begin{bmatrix} 0 & 6 \\ -2 & -1 \end{bmatrix} - \begin{bmatrix} 0 & -2 \\ 5 & 5 \end{bmatrix}$

8) $\begin{bmatrix} 5 & -1 & -5 \end{bmatrix} + \begin{bmatrix} -3 & -1 & 0 \end{bmatrix}$

Transitional Math Mrs. Gibbs

Algebra 2 Name _____ ID: 1

Assignment

Date 3rd assignment Period ____

Solve each system by elimination.

1) $-4x + y = 18$
$-2x - y = 0$

2) $-4x + 4y = 4$
$4x - 5y = -6$

3) $2x + 3y = -11$
$-2x - 2y = 10$

4) $-2x - 6y = -16$
$4x + 6y = 14$

5) $-3x + y = 18$
$-2x - y = 12$

6) $2x - 4y = -14$
$-4x + 4y = 12$

7) $-x - 4y = -16$
$-4x + 4y = 16$

8) $5x - y = 6$
$6x + y = 5$

9) $4x + 6y = -16$
$4x - 6y = 8$

10) $6x + 4y = 14$
$2x - 4y = 10$

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Geometry: Mrs Grubb

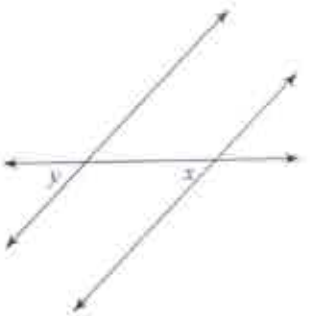
Name _____ ID: 1

Assignment

Date 1st assignment Period ____

Identify each pair of angles as corresponding, alternate interior, alternate exterior, consecutive interior, or vertical.

1)



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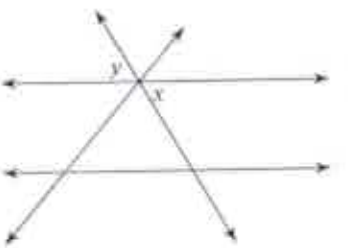

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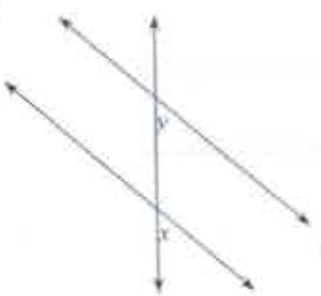

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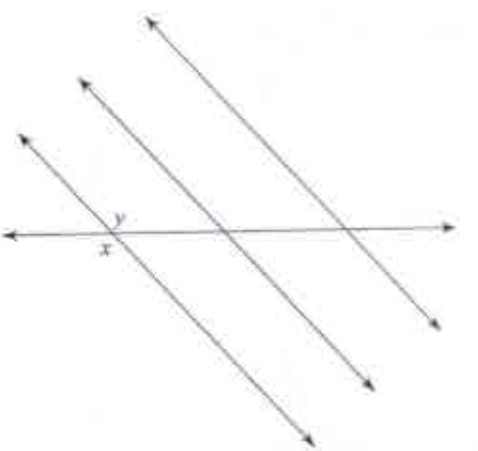

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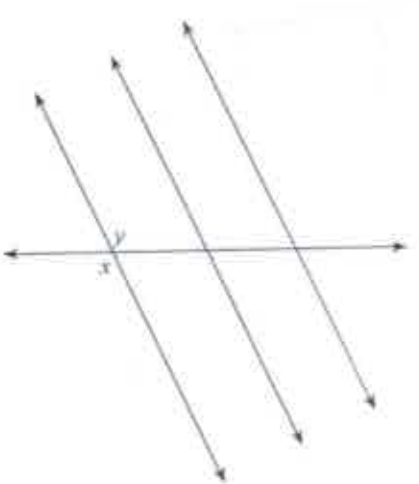

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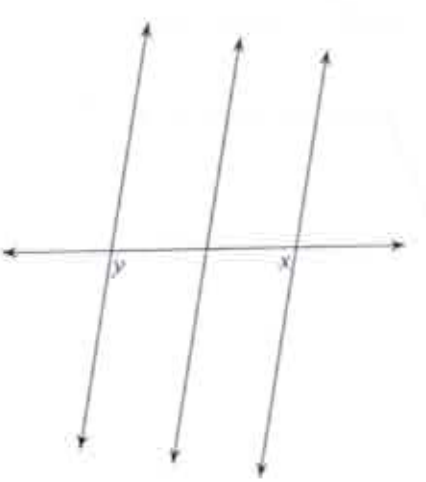


Geometry

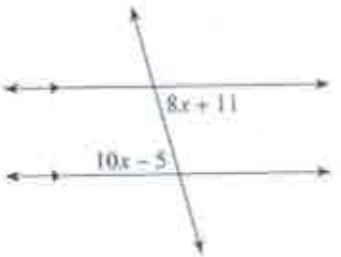
Name _____ ID: 1

Assignment

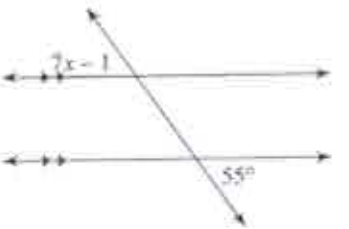
Date 2nd assignment Period ____

Solve for x.

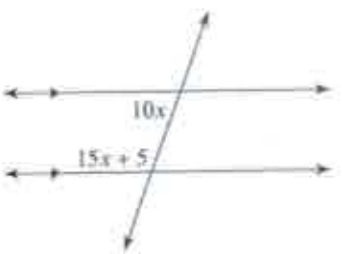
1)



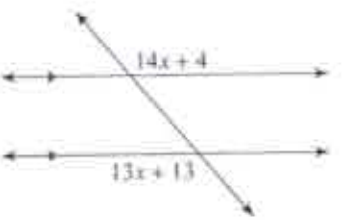
2)



3)



4)



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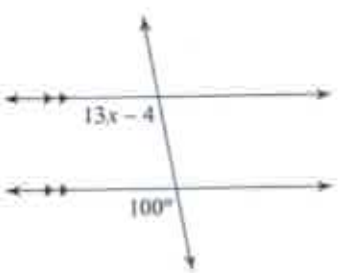

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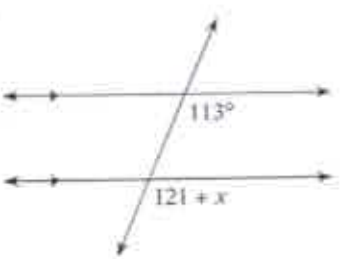

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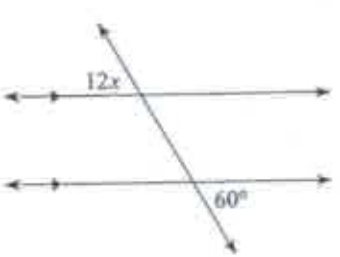

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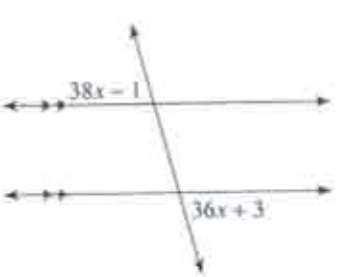

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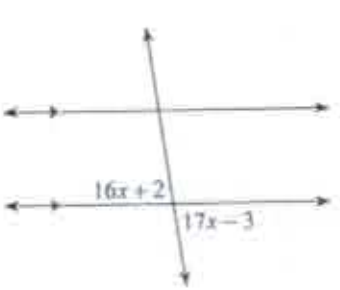

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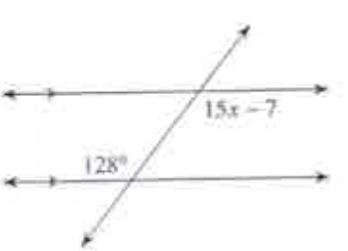

Geometry: Mrs. Grubb

Name_____ ID: 1

Assignment

Date 3rd Assignment Period____

Solve each equation for the indicated variable.

1) $am = np$, for a

2) $u = b + a + k$, for a

3) $c + a = d - r$, for a

4) $x - c = r + d$, for x

5) $z = b + a - m$, for a

6) $g = \frac{cb}{a}$, for a

7) $u = \frac{kb}{a}$, for a

8) $m + a = p + n$, for a

9) $g = -y + \frac{c}{x}$, for x

10) $a + k = v + w$, for a

11) $z = ma - b$, for a

12) $g = cxy$, for x

13) $x + k = v + w$, for x

14) $z = y - x - m$, for x