Two-Step Equations

ADVENTURE

Name _____

Date _____

In this assignment you will explore a mystery country. As you make choices and solve problems you will receive pieces of information about where in the world you are.

FACT FINDING

Solve each equation completely. (Choose 4 out of 5)

POPULATION (IN MILLIONS)	GDP (IN BILLIONS)	AREA (IN SQUARE KILOMETERS)	LIFE EXPECTANCY (IN YEARS)	YEAR OF INDEPENDENCE
$35p - 400 = 44225$	$-99610 = 1700 - 55g$	$\dfrac{a}{164363} - 10 = 10$	$54L + 43.42 = 3605.26$	$-\dfrac{Y + 13}{49} = -40$

FOOD OR FUN?

Solve each equation completely. Use the *Decoder* to uncover the clues. (Choose a set of three problems.)

THINGS TO EAT	THINGS TO DO
-Appetizer- The product of a number and 4 increased by 8 is -36.	-See- The quotient of a number and 6 decreased by 10 is equal to 2.
-Entrée- $\dfrac{1}{5}e - 1 = \dfrac{2}{3}$	-Try- $\dfrac{1}{7} + x = \dfrac{2}{3}x$
-Dessert- $4(d - 7) = 524$	-Visit- $-3(v + 25) = 111$

FANTASTIC FINALE

(Choose 2 of the 3 application problems. Use the *Decoder* to uncover the clues)

MYSTERY A	MYSTERY B	MYSTERY C
325 people were in a tour group. Six buses were completely filled and 7 people chose to walk. How many people did the bus hold?	Ciara brought $240 to spend on gifts for her family. She found 8 identical statues at a gift shop. She had $72 leftover. How much did each statue cost?	On Monday, Hakim stocked up on bottled water for the trip. On Tuesday, he purchased five more bottles to add to his collection. On Wednesday, half of his entire collection remained and he only had 7 left. How many did he have on Monday?

DECODER

Find the answers from the prior problems to retrieve the clues. Not all items in the Decoder will be used.

21	New Delhi	0	South America	9	Asia
-11	Kofta	-1540	Nowy Tomysl	2	Val d'Hérens
458	Lualualei	830	Burj Khalifa	138	Sheer Khurma
5.5	Africa	8/9	Kabul	143	Reykjavik
-3/7	Camel Trekking	7.34	Spelunking	-9.75	Chicago Pizza
25/3	Tandoori Chicken	-62	Goa Beach	53	Rupee
-1	Carriage in Savannah	72	Taj Mahal	-1/3	Baku

WHERE IN THE WORLD?

THE COUNTRY PROFILE OF...

Capital City		Population
World Region		GDP
Currency		Area
Foods to eat		Life Expectancy
Things to do		Year of Independence

Solving Two-Step Equations

ADVENTURE

Name _____

Date _____

In this assignment you will explore a mystery country. As you make choices and solve problems you will receive pieces of information about where in the world ~~you a~~

ANSWER KEY

~~F~~_ _ ~~FI D~~ G

~~Solv~~ ~~(Choos~~

POPULATION (IN MILLIONS — 2012)	~~2012)~~	AREA (IN SQUARE KILOMETERS)	LIFE EXPECTANCY (IN YEARS — 2012)	YEAR OF INDEPENDENCE
$35p - 400 = 44225$	$-99610 = 1700 - 55g$	$\dfrac{a}{164363} - 10 = 10$	$54L + 43.42 = 3605.26$	$-\dfrac{Y + 13}{49} = -40$
P = 1,275	**G = 1,842**	**a = 3,287,260**	**L = 65.96**	**Y = 1947**

FOOD OR FUN?

Solve each equation completely. Use the *Decoder* to uncover the clues (Choose a set of three problems.)

THINGS TO EAT	THINGS TO DO
Appetizer) The product of a number and 4 increased by 8 is -36. $4n + 8 = -36$ **n = -11** **Kofta**	See) The quotient of a number and 6 decreased by 10 is equal to 2. $n/6 - 10 = 2$ **n = 72** **Taj Mahal**
Entrée) $\dfrac{1}{5}e - 1 = \dfrac{2}{3}$ **e = 25/3** **Tandoori Chicken**	Try) $\dfrac{1}{7} + x = \dfrac{2}{3}x$ **x = - 3/7** **Camel trekking**
Dessert) $4(d - 7) = 524$ **d = 138** **Sheer Khurma**	Visit) $-3(v + 25) = 111$ **V = -62** **Goa Beach**

FANTASTIC FINALE

(Choose 2 of the 3 application problems. Use the *Decoder* to uncover the clues)

A	B	C
325 people were in a tour group. Six buses were completely filled and 7 people chose to walk. How many people did the bus hold? 6b + 7 = 325 b = 53 people fit on each bus Rupee	Ciara brought $240 to spend on gifts for her family. She found 8 identical statues at a gift shop. She had $72 leftover. How much did each statue cost? 8x + 72 = 240 X = $21 left over New Delhi	On Monday, Hakim stocked up on bottled water for the trip. On Tuesday, he purchased five more bottles to add to his collection. On Wednesday, half of his entire collection remained and he only had 7 left. How many did he have on Monday? (x+5)/2 = 7 X = 9 bottles of water Asia

DECODER

Find the answers from the prior problems to retrieve the clues. Not all items in the Decoder will be used.

21	New Delhi	0	South America	9	Asia
-11	Kofta	-1540	Nowy Tomysl	2	Val d'Hérens
458	Lualualei	830	Burj Khalifa	138	Sheer Khurma
5.5	Africa	8/9	Kabul	143	Reykjavik
-3/7	Camel Trekking	7.34	Spelunking	-9.75	Chicago Pizza
25/3	Tandoori Chicken	-62	Goa Beach	53	Rupee
-1	Carriage in Savannah	72	Taj Mahal	-1/3	Baku

WHERE IN THE WORLD?

THE COUNTRY PROFILE OF...

India

Capital City	New Delhi		Population	1275 millions
World Region	Asia		GDP	1842 billions
Currency	Rupee		Area	3,287,260
Foods to eat	Kofta, Tandoori Chicken & Sheer Khurma		Life Expectancy	65.96
Things to do	Taj Mahal, Goa Beach & Camel Trekking		Year of Independence	1947