Week 2 Answer Key

1. According to new studies, what did every modern dog descend from?

A. the Taco Bell Chihuahua

B. English setters and Labrador retrievers

C. American wolves in North, Central, and South America

D. approximately five female Asian wolves

2. What does the author describe in the section "From Wolf to Woof"?

A. The author describes how dogs that were not afraid of people ate well, survived, and multiplied.

B. The author describes how researchers say some theories about the way in which dogs evolved from wolves are wrong.

C. The author describes how researchers extracted DNA from the cells in the bones of dogs.

D. The author describes how genes determine a dog's inherited characteristics, such as eye and fur colors.

3. Read these sentences from the text.

"Some [scientists] said dogs evolved as two separate species 135,000 years ago in two parts of the world. Now, researchers say, those theories are wrong."

What evidence in the text supports the conclusion that those theories are wrong?

A. Each year we spend billions of dollars on our canine pals.

B. Asian wolves came to the Americas with Christopher Columbus in 1492.

C. Scientists found that the genes of the ancient American dogs were similar to the genes of dogs born in Europe and Asia.

D. Five female Asian wolves developed an uncanny ability to pick up human signals.

4. Scientists have long known that dogs evolved from wolves. But no one knows exactly how dogs became domesticated.

Based on these sentences, what can you infer about wolves?

A. Wolves are not domesticated.

B. Wolves became extinct.

C. Wolves come when people call them.

D. Wolves were raised by scientists.

5. What is the main idea of this text?

A. Christopher Columbus arrived in the Americas in 1492.

B. Researchers say every modern dog, including American dogs, descended from Asian wolves.

C. A land bridge once linked northern Asia and North America.

D. Dogs are the most popular type of pet in the United States.

6. Read these sentences from the text.

"Scientists have long known that dogs evolved from wolves. Just when the transformation from wolf to dog actually took place, however, remained a mystery."

Based on these sentences, what does the word "evolve" most likely mean?

A. to develop and change

B. to die off completely

C. to outlive

D. to tame

7. Read this sentence from the text.

"Scientists suspect dogs first set paw in North America by following settlers across a land bridge that once linked northern Asia and North America."

What word or phrase could replace "once linked" without changing the meaning of the sentence?

A. later linked
B. always linked
C. still links
D. used to link

8. Scientists used to think dogs evolved in two different groups in which two parts of the world?

Scientists thought one group developed in Europe and Asia and another group developed in North, Central, and South America.

9. According to new studies by scientists, how do the genes of ancient American dogs compare to the genes of dogs born in Europe and Asia?

The genes of the ancient American dogs were similar to the genes of dogs born in Europe and Asia.

10. Read these sentences from the text:

> Some [scientists] said dogs evolved as a separate species 135,000 years ago in two parts of the world. One group of dogs developed in Europe and Asia from Asian wolves. Another group evolved in North, Central, and South America from American wolves. Now, researchers say, those theories are wrong.

Explain how what scientists learned about the genes of ancient American dogs and the genes of dogs born in Europe and Asia affected their theories about how dogs evolved.

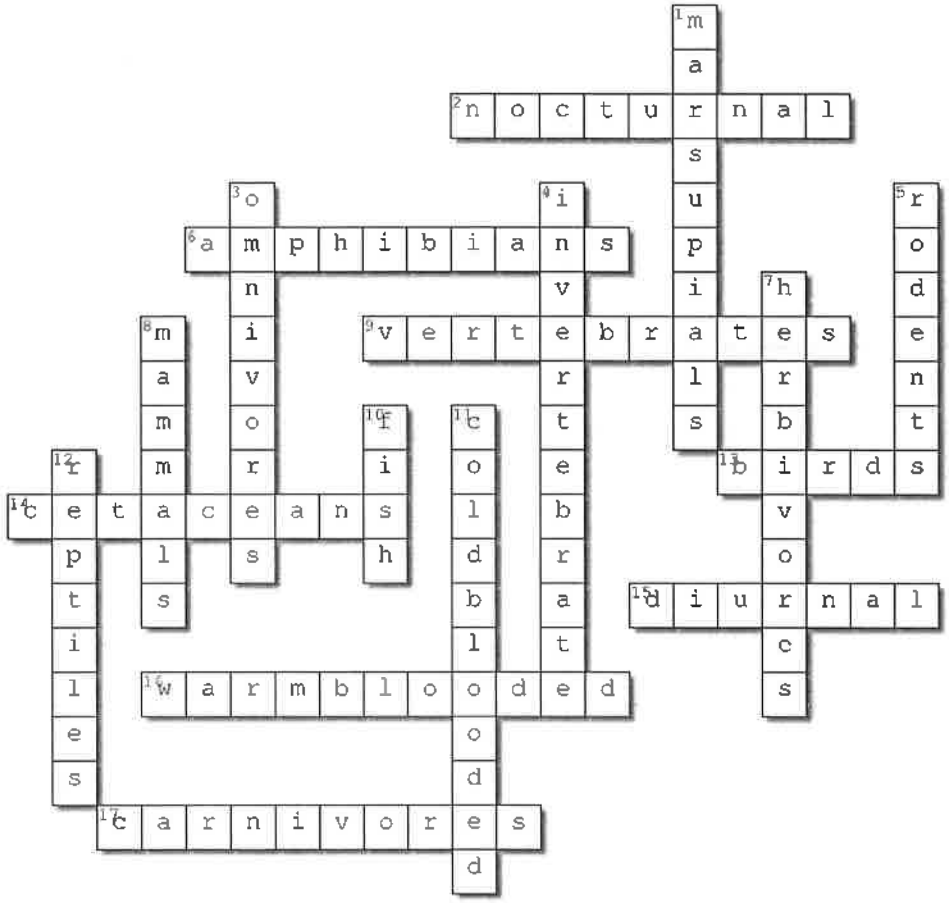
Support your answer with evidence from the text.

Answers may vary slightly but should be supported by the text. Students should note that the genes of ancient American dogs and the genes of dogs born in Europe and Asia were similar. Since these dogs had similar genes, then scientists concluded that dogs developed or evolved from the same wolves. This proved their previous theory, that dogs evolved from wolves in two different parts of the world, wrong.

Name: _____

Animals

Complete the crossword puzzle below



Rodents | Omnivores | Mammals | Marsupials | Cetaceans | Amphibians | Birds | Carnivores | Vertebrates

Coldblooded | Diurnal | Reptiles | Fish | Invertebrate | Nocturnal | Herbivores | Warmblooded

Across

2. Animals that are active at night (**nocturnal**)
6. Cold-blooded and live both on land and in water (**amphibians**)
9. Has a spinal column (**vertebrates**)
13. Warm-blooded animals with feathers and wings (**birds**)
14. Mammals that live in the Ocean (**cetaceans**)
15. Animals that are active during the day (**diurnal**)
16. Animals that have a constant temperature (**warmblooded**)
17. Animals that eat meat (**carnivores**)

Down

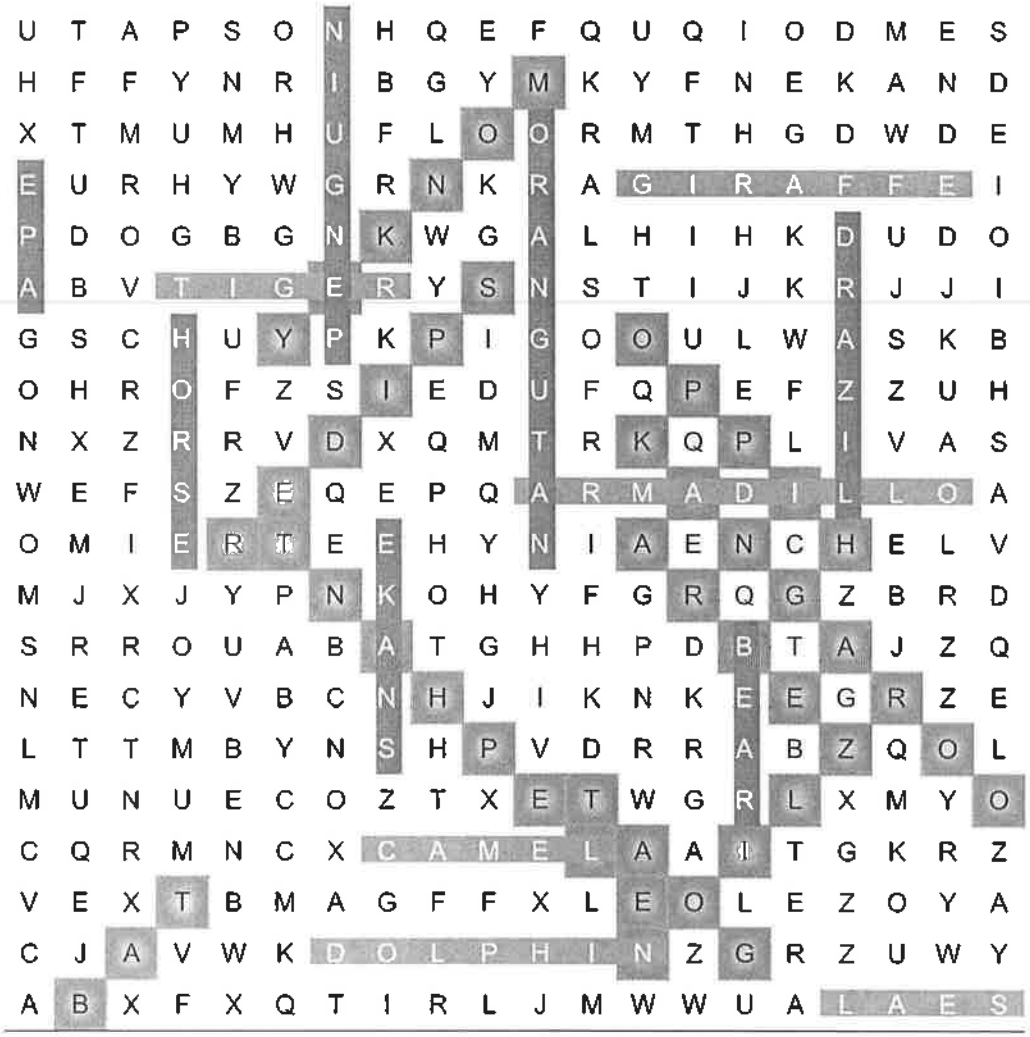
1. Mammals that carry their babies in a pouch outside their bodies (**marsupials**)
3. Animals that eat both plants and meat (**omnivores**)
4. Does not have a spinal column (**invertebrate**)
5. Animals that have large front teeth (**rodents**)
7. Animals that eat plants (**herbivores**)
8. Warm-blooded and are mostly born alive (**mammals**)
10. Breathe through gills and live in water (**fish**)
11. Animals whose body temperature changes with their environment (**coldblooded**)
12. Cold-blooded and breathe with lungs (**reptiles**)

Name: _____

Created with TheTeachersCorner.net Word Search Maker

Zoo Animals

Highlight, circle, or underline the words from the word bank. Remember, words could be up, down, across, diagonal, and even backwards!



APE
ARMADILLO
BAT
BEAR
CAMEL
DOLPHIN
ELEPHANT
GIRAFFE
GOAT
HIPPO
HORSE
KANGAROO
LION
LIZARD
MONKEY
ORANGUTAN
PENGUIN
SEAL
SNAKE
SPIDER
TIGER
ZEBRA

1. What is Sir Isaac Newton's Third Law of Motion?

A. Objects at rest and objects in motion will remain at rest or in motion, unless they are acted upon by an unbalanced force.

B. For every action there is an equal and opposite reaction.

C. When a force acts on a mass, acceleration is produced.

D. When a force acts on a mass, the mass increases.

2. What does the author describe in the passage?

A. Sir Isaac Newton's most famous book, *Mathematical Principles of Natural Philosophy*

B. how LeBron James developed his basketball dunking skills

C. how Sir Isaac Newton came up with the three basic laws of motion

D. how the way that LeBron James dunks a basketball illustrates Newton's Third Law of Motion

3. Read the following sentences from the passage: "When LeBron James jumps, he pushes down on the surface of the court. This is the 'action' that Newton mentions in his Third Law."

Based on this information, LeBron James jumping is an example of which part of Newton's Third Law?

A. both the action and the equal and opposite reaction

B. the equal and opposite reaction of an action

C. the action which causes an equal and opposite reaction

D. neither the action nor the equal and opposite reaction

4. The force created when the court pushes LeBron James upwards is equal to which force?

A. the force LeBron James used to dunk the ball

B. the force LeBron James drives into the court when he jumps

C. the force LeBron James uses to throw the ball

D. the force LeBron James drives into the court when he lands after jumping

5. What is the main idea of this passage?

A. LeBron James and Michael Jordan are two of the best players in the history of professional basketball.

B. Basketball players must have high vertical leaps in order to dunk basketballs.

C. Newton's Third Law of Motion is related to the First and Second Laws of Motion.

D. Newton's Third Law of Motion can be examined using the examples of basketball players jumping.

6. Read the following paragraph from the passage:

"LeBron James is a big man. He is 6 feet, 8 inches tall. He weighs 245 pounds. When he is standing upright, with his arms raised above his head, his reach extends to 8 feet and 10¼ inches."

How can the tone of the author best be described in this paragraph?

A. humorous

B. angry

C. disinterested

D. factual

7. Choose the answer that best completes the sentence below.

_____ LeBron James has an impressive vertical leap of 44 inches, Michael Jordan holds the record with a vertical leap of 48 inches.

A. In contrast

B. For example

C. Although

D. Initially

8. According to the passage, in order for LeBron James to score a slam-dunk, what must he exert?

He must exert a certain amount of force against the surface of the basketball court.

9. When LeBron James jumps, he is driving force into the court. How is this force created?

This force is created by the energy stored inside his muscles.

10. How does the example of LeBron James jumping to dunk a basketball illustrate Newton's Third Law of Motion? Use information from the passage to support your answer.

When LeBron James jumps to dunk a basketball, he is using energy to drive force into the court. This force is the "action" that Newton mentioned in his Third Law. The "reaction" comes from the ground pushing LeBron James upwards with an opposite and equal amount of force.

KEY

Use the words in capitals to form a word that fits into the space next to it!

1. A *knowledge* of foreign languages, especially French and German, is required for the job. (KNOW)
2. Judo requires both skill and *strength* (STRONG).
3. We decided to buy the house because the price was very *reasonable* (REASON)
4. The *height* of the mountain is about 2000 metres (HIGH).
5. Tea or coffee? – If I had the *choice* I'd take tea (CHOOSE).
6. She was very *ambitious* and hoped to become a lawyer before she reached the age of 35. (AMBITION)
7. Thank you for everything you've done. You've been very *helpful* (HELP).
8. The painting looked real, but the *signature* was obviously a forgery (SIGN).
9. Last year the company made a *loss* of over $10 million (LOSE).
10. I could never live in Saudi Arabia because of the *heat* (HOT).
11. She passed all of her exams with *ease* (EASY).
12. I do not think it is a good idea to go to the beach today. It's too *cloudy* (CLOUD).
13. The police are looking into the *mysterious* disappearance of the old man (MYSTERY)
14. Don't touch that snake. It's extremely *poisonous* (POISON).
15. I think it's a very *sensible* thing to wait before you buy the house. Prices might go down (SENSE)
16. Who prepared this fish? It's awful and completely *tasteless* (TASTE).
17. I want *proof* of your innocence (PROVE).
18. I met my *informant* in secret (INFORM).
19. It is my *belief* that there are other living beings in the universe (BELIEVE).
20. Everyone will tell you that *competition* is the best way to keep prices down (COMPETE).
21. A phrasebook is a very *useful* thing to have when you visit a foreign country (USE).
22. He definitely has the *ability* to become a professional tennis player (ABLE).
23. This part of the country is made up of a landscape of great *beauty* (BEAUTIFUL)
24. I can't finish this book. I'll die of *boredom* (BORED).
25. The *departure* of the plane was delayed because of fog around the airport (DEPART).
26. He was filled with envy when he saw his neighbour's new car (ENVIOUS).
27. You should care about your *appearance* when you go to the interview (APPEAR).
28. There is no *comparison* between his latest book and the earlier ones (COMPARE)
29. We had to get special *permission* to leave early (PERMIT).
30. As the best man, he had to make a *speech* at the wedding (SPEAK).

??? Brain Teasers

Name:

See if you can figure out what these tricky brain teasers are trying to say.

BUSINE...

Unfinished Business

Ace in the Hole

INmotherLAW

Mother-in-Law

TNMN^2

Tiananmen Square

BD ii

Beady Eyes

@ eeee

At ease

h^{e}ar^{t}be^{a}t

Irregular Heartbeat

ni4ni

An eye for an eye

S
T
ONE

Corner Stone

Punishment

Capital Punishment

house
PRAIRIE

Little House on the Prairie

MY1111LIFE

For Once in My Life

Point Shortest Distance Point

Shortest Distance Between Two Points

G
N
I
K
A
M

LOST LOST
LOST LOST

Making Up for Lost Time

mil1lion

One in a Million

Key

Ballet Class

There are 4 ballet students in a class. Their mean (average) age is 8.5 years.
Then a 7-year old boy joins the class.
What is the new average age of the students in the ballet class?

I am being asked to find out the average age of students in a ballet class after a 7-year old joins.

Important info:

- 4 - # of students originally in class
- 8.5 - average age of students originally in class
- 7 - age of student added to class

Answer: The average age of the new class after the 7-year old joins will be 8.2 years old.

To solve this I will...

(A) Find the sum of the ages of the students originally in class by multiplying their average age (8.5) by the # of students (4)

$$\begin{array}{r} {}^{2}8.5 \\ \times\ 4 \\ \hline 34.0 \end{array}$$

(B) Find the sum of the ages of the new class by adding the age of the new student (7) to the sum of the original class (34)

$$\begin{array}{r} 34 \\ +\ 7 \\ \hline 41 \end{array}$$

(C) Find the new average class age by dividing the new classes sum of ages (41) by the number of students in the new class (5)

$$5\overline{)41} = 8.2 \quad (40,\ 10)$$

Check: inverse operations

$$4\overline{)34.0} = 8.5 \quad (32,\ 20)$$

$$41 - 7 = 34$$

$$8.2 \times 5 = 41.0$$

Also it logically makes sense that the average went down because the new student is younger than the old average

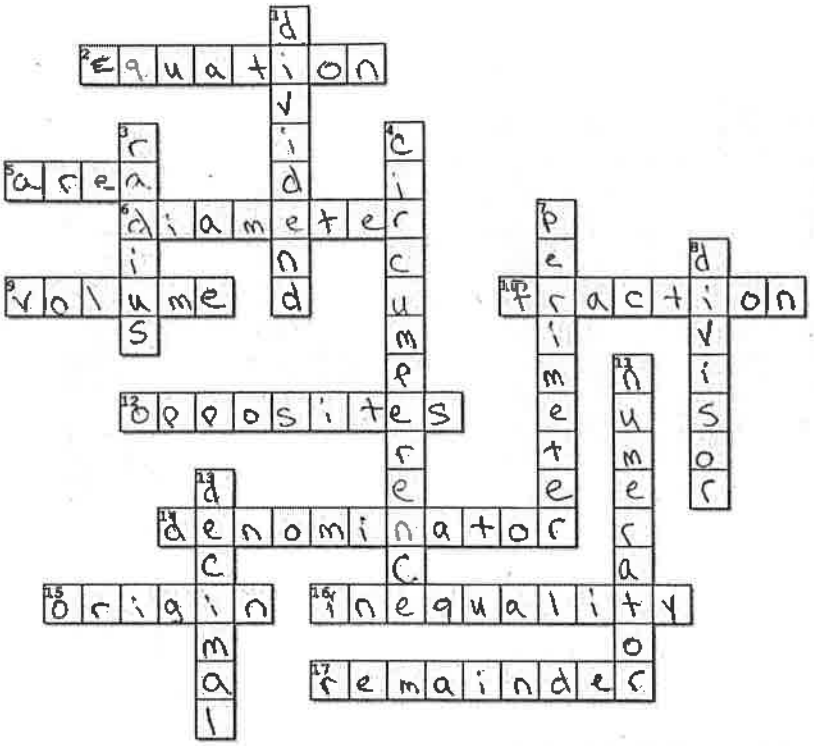
Week 2
Thursday
Page 1

Answer Key

Name:_____

Algebra

Complete the crossword puzzle below. Should you get stuck, complete all of the ones you DO know, that will help.



Created using the Crossword Maker on TheTeachersCorner.net

Across

2. a mathematical sentence that has an equal sign
5. the units inside of a shape (L x W)
6. the distance across a circle, through the middle
9. the units inside of a 3D figure (L x W x H)
10. a number that is part of a whole
12. numbers that are equal distance from zero, one negative and one positive
14. the number on the bottom of a fraction
15. always (0,0)
16. a math sentence that uses <, > or = to compare 2 things
17. a number that can be left over after dividing

Down

1. the number INside the division box
3. the distance from the center of a circle to any point on the outside of it
4. the distance all the way around a circle
7. the units around a shape (2L + 2W)
8. the number outside the division box
11. the number on top of the fraction
13. a number with a digit in the ones, tenths, hundreths, etc

Week 2
thursday
Page 2

Answer Key

Please complete the following example with the words from your crossword puzzle. A scrambled word bank is provided for you at the bottom... ONLY if you need it!

1. If I told you that the distance around the circle is 12.4 cm, this would be the circumference.
2. 13.37 is an example of a what? decimal.
3. The distance across a stop sign is 22 inches, this is it's diameter.
4. If you're seeing how many times 8 can go into 488; 488 is the dividend.
5. If you're seeing how many times 8 can go into 488; 8 is the divisor.
6. "Seven times C equals 84" is an example of an equation.
7. ¾, ⅞, ½ are all examples of a fraction.
8. When looking at ¾, 3 is the numerator.
9. When looking at ⅞, 8 is the denominator.
10. "Rachel is at least 6 feet tall" is an example of an inequality.
11. In math, 8 and -8 are considered opposites.
12. When graphing points on a coordinate plane, you run before you jump from this point, the origin.
13. The area of a square in 64 inches squared.
14. The perimeter of a trapezoid, all of the sides added together, is 76 cm.
15. The distance across the stop sign was 22 inches, half of this or 11 inches, would be the circles radius.
16. If I'm diving 72 by 7 I get 10 with 2 left over. This 2 is called the remainder.
17. 34 ml of water fit into the beaker in the science lab, this was the volume of the beaker.

oleumv	quaintlyei	viroids
dreamiern	ordainmento	vineddid
saridu	monetaryu	mediater
tempereri	pisotopes	medical
reaa	carotinf	enmercuricfce
iringo	antiqueo	

CHALLENGE! Now that I've given you one example for each vocabulary word; can you come up with an additional, different "real-life" example? Write them out on a separate sheet of paper.

Key

Name_____ Period_____ Date_____

Find each sum.

1. $-4 + (-1) =$ -5
2. $-2 + 6 =$ 4
3. $5 + (-5) =$ 0
4. $9 + (-8) =$ 1
5. $-6 + (-3) =$ -9
6. $1 + (-11) =$ -10
7. $7 + (-5) =$ 2
8. $-2 + 3 =$ 1
9. $5 + 8 =$ 13
10. $15 + (-11) =$ 4
11. $-50 + 20 =$ -30
12. $-100 + (-200) =$ -300
13. $19 + (-24) =$ -5
14. $-15 + (-20) =$ -35
15. $-41 + 42 =$ 1

Find each difference.

16. $8 - 5 =$ 3
17. $7 - (-5) =$ 12
18. $-8 - 7 =$ -15
19. $8 - 13 =$ -5
20. $-10 - (-4) =$ -6
21. $15 - (31) =$ -16
22. $16 - 17 =$ -1
23. $21 - 14 =$ 7
24. $8 - (-6) =$ 14
25. $30 - 80 =$ -50
26. $-3 - (-3) =$ 0
27. $-5 - 5 =$ -10
28. $-13 - 9 =$ -22
29. $-3 - (-1) =$ -2
30. $100 - (-90) =$ 190

Key

Find each product.

Remember:

- **Positive x Positive = Positive**
- **Negative x Negative = Positive**
- **Positive x Negative = Negative**
- **Negative x Positive = Negative**

31. $7(-2) = -14$ **32.** $-3(-1) = 3$ **33.** $-5(9) = -45$

34. $-7(-3) = 21$ **35.** $6(-11) = -66$ **36.** $-10(5) = -50$

37. $13(2) = 26$ **38.** $-9(-1) = 9$ **39.** $9(-7) = -63$

40. $-4(4) = -16$ **41.** $12(-4) = -48$ **42.** $-100(-6) = 600$

Find each quotient.

Remember:

- **Positive ÷ Positive = Positive**
- **Negative ÷ Negative = Positive**
- **Positive ÷ Negative = Negative**
- **Negative ÷ Positive = Negative**

46. $-10 \div 5 = -2$ **47.** $30 \div (-3) = -10$ **48.** $18 \div (-2) = -9$

49. $\frac{-28}{-4} = 7$ **50.** $-25 \div (-5) = 5$ **51.** $27 \div 9 = 3$

52. $\frac{-7}{7} = -1$ **53.** $\frac{300}{50} = 6$ **54.** $-42 \div (-6) = 7$

55. $\frac{64}{-2} = -32$ **56.** $-80 \div (-20) = 4$ **57.** $-36 \div 4 = -9$

One and Two-Step Equations Quiz

Name Key Period ____ ____/48

(4 Points Each)

1. $4x = 44$

$\frac{4x}{4} = \frac{44}{4}$

$x = 11$

2. $x + 7 = 27$

$-7 \quad -7$

$x = 20$

3. $29 = a - 70$

$+70 \quad +70$

$99 = a$

Solve each equation for the variable. Show your work and check your solution.

4. $4x + 6 = 22$

$-6 \quad -6$

$\frac{4x}{4} = \frac{16}{4}$

$x = 4$

5. $4x + 7 = 27$

$-7 \quad -7$

$\frac{4x}{4} = \frac{20}{4}$

$x = 5$

6. $29 = 2a - 7$

$+7 \quad +7$

$\frac{36}{2} = \frac{2a}{2}$

$18 = a$

7. $29 = 3c - 10$

$+10 \quad +10$

$\frac{39}{3} = \frac{3c}{3}$

$13 = c$

8. $6x + 6 = 60$

$-6 \quad -6$

$\frac{6x}{6} = \frac{54}{6}$

$x = 9$

9. $2 = 11a - 31$

$+31 \quad +31$

$\frac{33}{11} = \frac{11a}{11}$

$3 = a$

10. $18 = 4a - 6$

$+6 \quad +6$

$\frac{24}{4} = \frac{4a}{4}$

$6 = a$

11. $7x + 5 = 54$

$-5 \quad -5$

$\frac{7x}{7} = \frac{49}{7}$

$x = 7$

12. $9x + 9 = 72$

$-9 \quad -9$

$\frac{9x}{9} = \frac{63}{9}$

$x = 7$

Key

Challenge Page

$5x + 4x - 6x = 24$

$9x - 6x = 24$

$\frac{3x}{3} = \frac{24}{3}$

$x = 8$

$8y + 5 - 4y + 1 = 46$

$4y + 6 = 46$

$-6 \quad -6$

$\frac{4y}{4} = \frac{40}{4}$

$y = 10$

$2m + 3(m - 8) = 1$

$2m + 3m - 24 = 1$

$5m - 24 = 1$

$+24 \quad +24$

$\frac{5m}{5} = \frac{25}{5}$

$m = 5$

$30 = 2(3x - 6) + x$

$30 = 6x - 12 + x$

$30 = 7x - 12$

$+12 \quad +12$

$\frac{42}{7} = \frac{7x}{7}$

$6 = x$

$2(y + 5) + 3y = 25$

$2y + 10 + 3y = 25$

$5y + 10 = 25$

$-10 \quad -10$

$\frac{5y}{5} = \frac{15}{5}$

$y = 3$

$60 = 4(k + 3) + 2(k - 3)$

$60 = 4k + 12 + 2k - 6$

$60 = 6k + 6$

$-6 \quad -6$

$\frac{54}{6} = \frac{6k}{6}$

$9 = k$

Data Set : ~~13, 18, 11, 4, 24, 9, 12, 18, 8~~

Ordered Data Set: 4, 8, 9, 11, 12, 13, 18, 18, 24

Mean: 13 Median: 12

Mode: 18 Range: 24 - 4 = 20

4
24
18
18
13
+2
11
9
8
+ 4
117

$9\overline{)117}$ 13
-9
27

Solution B-1

Level: Getting Harder

How to play:

Each row (across) must contain the numbers 1 through 9.
Each column (up and down) must contain the numbers 1 through 9.
Each square box must contain the numbers 1 through 9.

8	9	1	4	6	5	2	3	7
3	7	5	8	2	9	1	6	4
2	6	4	3	7	1	9	8	5
1	2	8	6	9	4	7	5	3
6	3	9	1	5	7	8	4	2
5	4	7	2	3	8	6	9	1
4	8	3	7	1	6	5	2	9
7	5	6	9	4	2	3	1	8
9	1	2	5	8	3	4	7	6

Terrible Lizard?