

Name _____



Math Challenge Choco Combos

Zane chose 3 chocolates from the treat table during Valentine's Day party. There were 6 types of chocolates to choose from: cream, caramel, double chocolate, peanut butter, nougat, and mint. The chocolates on his plate are different. What are all the combinations of 3 chocolates Zane could have chosen?

Find an organized way to list all the possibilities and the answer in the box below.

Name _____



Groundhog Math #1

Use the numbers in the groundhogs below to answer the questions. Numbers may be used more than once.



Math Challenges & Brainteasers for February with Valentine, Groundhog, Winter Sport, and Oscar Themes

1. The sum of which two groundhogs is 20? _____
2. The sum of which two groundhogs is 11? _____
3. The sum of which two groundhogs is 70? _____
4. The difference of which two groundhogs is 8? _____
5. Which groundhog can be doubled to make 24? _____
6. The difference of which two groundhogs is 1? _____
7. Which groundhog can be doubled to make 12? _____
8. Which groundhog can be doubled to make one dozen? _____
9. Which groundhog can be tripled to make 18? _____
10. The difference between which two groundhogs is 7? _____
11. Which 4 groundhogs are even when tripled? _____
12. What is the sum of all the groundhogs? _____
13. Which groundhog when tripled is half of 66? _____
14. Write your own groundhog math question like the ones above on the back of this page. Include the question and all possible answers.

Print & Go PDF

a classic Oscar best picture
reater. Use the clues below
which theater and complete
the bottom of the page.

1. Toy Story 3 is playing
2. E.T. is playing two
3. Beauty and the Beast
4. Star Wars is playing

Mary
Poppins

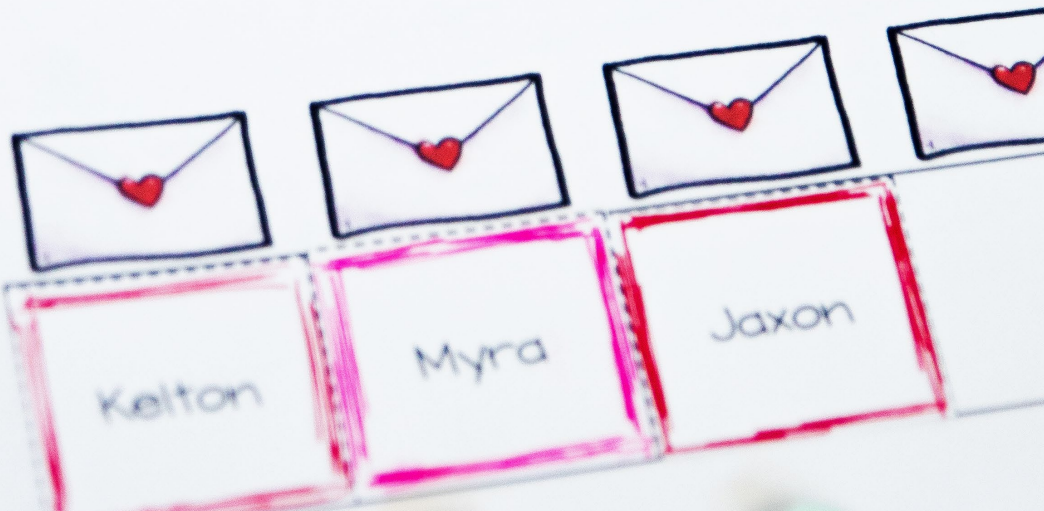
Name _____

You've Got Mail Brainteaser

There are 5 Valentine's Day letters in a row. Use the clues below
determine which letter belongs to each person.

1. Bella's letter is next to Jaxon's.
2. Kelton's letter is next to Myra's.
3. There are two letters between Scott and Myra's.
4. Kelton's letter is to the left of Myra's.
5. There is one letter between Bella's and Myra's.

You may cut out the cards at the bottom of the page to help
the problem if you would like. Then write your answer in
below.



+ Google Slides versions

You've Got Mail

There are 5 Valentine's Day letters in a row. Use the clues below to determine which letter belongs to each person.

Clue #1: Bella's letter is next to Jaxon's.
Clue #2: Kelton's letter is next to Myra's.
Clue #3: There are two letters between Scott and Myra's.
Clue #4: Kelton's letter is to the left of Myra's.
Clue #5: There is one letter between Bella's and Myra's

Use these moveable pieces to show your answer.

Jaxon Bella

Myra Kelton

Scott

13 Math Challenges

Name _____



Math Challenge 2010 Medal Count

In the 2010 Winter Olympics these were the top 10 medal earning countries. Complete the missing numbers in the table using the clues below to help you.

- South Korea won four more silver than bronze medals.
- The United States won five fewer gold medals than Canada.
- Germany won 30 total medals.
- Norway, Austria, and France won the same number of bronze medals.
- Sweden, France, and China won the same total number of medals.
- China won one less gold medal than South Korea.
- Norway and The United States won the same number of gold medals.
- China and Sweden won the same number of silver medals.

Rank	Country	Gold	Silver	Bronze	Total Medals
1	United States		15	13	

Name _____



Math Challenge 2014 Medal Count

In the 2014 Winter Olympics these were the top 10 medal earning countries. Complete the missing numbers in the table using the clues below to help you.

- Canada won the same number of gold and silver medals.
- The Netherlands earned one more bronze than gold medals.
- Germany earned four fewer bronze medals than Russia.
- Russia won one more silver medal than Canada.
- The Netherlands and United States won the same number of silver medals.
- France won the same number of gold and silver medals.
- Switzerland won 5 fewer total medals than Norway.
- The Netherlands and Russia won the same number of bronze medals.

Rank	Country	Gold	Silver	Bronze	Total Medals
1	Russia	13			33

Name _____



Math Challenge Candy Combinations

Emily brought Pixie Stix, gum drops, candy hearts, gummy bears, and Fun Dip to hand out to her classmates for Valentine's Day. If she gives each classmate 2 different types of candy, how many different candy combinations can she make?

Find an organized way to show all possible combinations and the answer in the box below.

Name _____



Math Challenge Choco Combos

Zane chose 3 chocolates from the treat table during his class Valentine's Day party. There were 6 types of chocolates to choose from: raspberry cream, caramel, double chocolate, peanut butter, nougat, and mint. If all of the chocolates on his plate are different, what are all of the combinations of chocolates Zane could have?

Find an organized way to show all possible combinations and the answer in the box below.

Name _____



Math Challenge Punxsutawney's Predictions

Every year on February 2nd, the groundhog Punxsutawney Phil predicts the weather. If he sees his shadow this means there will be six more weeks of winter. If he does not, this means that he predicts an early spring. Use the clues below to determine how many times Phil has predicted six more weeks of winter.

- Clue #1: Phil has made 122 total recorded predictions.
- Clue #2: Phil has predicted six more weeks of winter 86 more times than he has predicted an early spring.

Show your work in the box below.

Name _____



Math Challenge Washington's Days in Office

George Washington was inaugurated as the first president of the United States on April 30, 1789 and left office on March 4, 1797. How many days was George Washington president? Remember that 1792 and 1796 were leap years.

Show your work in the box below.

Name _____



Math Challenge Oscar Weight

In late February, the Academy Awards are presented to the best films of the previous year. The statuette the winners receive is called an Oscar. Each Oscar weighs 8.5 pounds. 24 total Oscars will be awarded. If the Oscars are divided evenly on 3 tables before the ceremony, how much weight would each of the tables need to hold?

Show your work in the box below.

Name _____



Math Challenge Oscar Engravings

In late February, the Academy Awards (or Oscars) are awarded to the best films of the previous year. In order to keep the winners secret, an engraved label to put on the Oscar is made for every nominee. The winners' labels are put on the Oscars after the awards show. The rest of the labels are recycled. If there are 24 Oscar categories and 5 nominees in each category, how many Oscar labels will be recycled?

Show your work in the box below.

Name _____



Math Challenge Lincoln's Days in Office

Abraham Lincoln served as the sixteenth president of the United States from March 4, 1861 - April 15, 1865. How many days was Abraham Lincoln president? Remember that 1864 was a leap year.

Show your work in the box below.

Name _____



Math Challenge Valentine Box - Perimeter

Peter's Valentine box is a quadrilateral that has a perimeter of 4 units. Use the boxes below to draw the 3 different shapes Peter's Valentine box could be.

Name _____



Math Challenge Valentine Box - Area

Peter's Valentine box is a quadrilateral that has an area of 12 square units. Use the boxes below to draw the 3 different shapes Peter's Valentine box could be.

Name _____



Math Challenge Hundreds Day Project

For the one hundredth day of school Miss Honey wants to do an edible art project with her students. Each of her 24 students will need 100 pieces of candy for the project. If the candy comes wrapped in sets of 10, how many sets of candy will Miss Honey need to buy?

Show your work in the box below.

Name _____



Math Challenge Groundhog Time

There are a number of events planned at Gobbler's Knob for Groundhog Day. Use the clues below to determine what time Punxsutawney Phil's prediction will be announced.

- Clue #1: The gates at Gobbler's Knob open at 3:00 a.m.
- Clue #2: Phil's prediction is announced one hour before chainsaw sculpture carving.
- Clue #3: Chainsaw sculpture carving begins 2 hours 45 minutes before groundhog BINGO.
- Clue #4: Groundhog BINGO begins 8 hours 30 minutes after the gates open.

Show your work in the box below.

13 Brainteasers

Groundhog Math #1

Use the numbers in the groundhogs below to answer the questions. Numbers may be used more than once.



- The sum of which two groundhogs is 20? _____
- The sum of which two groundhogs is 11? _____
- The sum of which two groundhogs is half of 70? _____
- The difference between which two groundhogs is 8? _____
- Which groundhog can be doubled to make 24? _____

WINTER Sports Brainteaser

Arrange the letters in WINTER so there is one of every letter in the word in every row, column, and 2x2 box.

				T	
F					R

Oscar Screenings

Five classic Oscar best picture nominees are being shown at a local movie theater. Use the clues below to determine which film is being shown in which theater and complete the Now Showing sign. Cut out the cards at the bottom of the page to help you if you would like.

- Toy Story 3 is playing between E.T. and Star Wars.
- E.T. is playing two theaters down from Mary Poppins.
- Beauty and the Beast is not playing in theater 1.
- Star Wars is playing two theaters down from Beauty and the Beast.



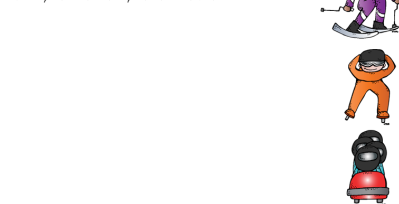
NOW SHOWING

Winter Athletes

Val, James, Julie, and Tara all competed in the Winter Games. They each competed in a different Winter Olympic event (hockey, skiing, speed skating, and bobsled). They each earned at least one Olympic medal (1 gold, 1 silver, 1 bronze, 2 golds).

- Use the clues to determine the event each athlete competed in, and the number and type (s) of Olympic medals they received.
- Val does not play hockey.
 - The skier came in second place.
 - The girls (Julie and Tara) competed in bobsled and skiing.
 - Tara does not know how to ski.
 - The speed skater earned more than one Olympic medal.
 - James came in first place in his sport.

Show your work and your answer here:



Val competed in _____ and earned _____ medal(s).
 James competed in _____ and earned _____ medal(s).
 Julie competed in _____ and earned _____ medal(s).
 Tara competed in _____ and earned _____ medal(s).

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LOVE Brainteaser

Arrange the letters in LOVE so there is only one of each letter in the word in every row, column, and 2x2 box.

	O			
	E		L	
			V	

Heart Shaped Boxes

There are 5 heart shaped boxes of chocolates. Each box has a different flavor of chocolates. Use the clues below to determine what flavor of chocolates are in each box.

- The double chocolate box is three boxes away from the peanut butter.
- The mint chocolates are to the right of the peanut butter.
- There is one box between the mint and the lemon chocolates.
- The vanilla cream box is to the right of the lemon.

Cut out the cards at the bottom of the page to help you if you would like. Then write your answers in the boxes below.



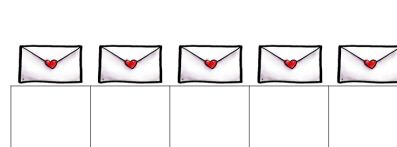
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You've Got Mail Brainteaser

There are 5 Valentine's Day letters in a row. Use the clues below to determine which letter belongs to each person.

- Bella's letter is next to Jaxon's.
- Kelton's letter is next to Myra's.
- There are two letters between Scott and Myra's.
- Kelton's letter is to the left of Myra's.
- There is one letter between Bella's and Myra's.

You may cut out the cards at the bottom of the page to help you solve the problem if you would like. Then write your answer in the boxes below.



Bella	Jaxon	Kelton	Myra	Scott
-------	-------	--------	------	-------

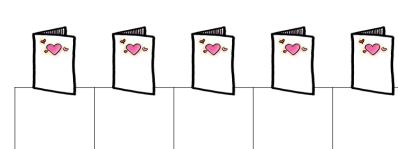
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Valentine Cards Brainteaser

There are five valentine cards in a row. Use the clues below to determine whose valentine card is whose.

- Ella's card is next to June's.
- Kurt's card is between Dan's and Christie's.
- Christie's card is next to Ella's.
- There is only one card to the right of Ella's.

You may cut out the cards at the bottom of the page to help you solve the problem if you would like. Then write your answer in the boxes below.



HEARTS Brainteaser

Arrange the letters in HEARTS so there is one of every letter in the word in every row, column, and 2x2 box.

			R	S
		H		
H			T	
			E	
H				R

100 Hundreds Day 100 Equations Challenge

Using only the digits 1 and 0, write a number sentence that is equal to each number 1-100 in the box next to the number. You can repeat the digits 1 and 0 as many times as you would like and can use addition, subtraction, multiplication, or division as part of your number sentences.

1	16	31
2	17	32
3	18	33
4	19	34
5	20	35
6	21	36
7	22	37
8	23	38
9	24	39
10	25	40
11	26	41
12	27	42
13	28	43
14	29	44
15	30	45

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LOVE & HUGS Brainteaser

Arrange the letters and symbol in LOVE&HUGS so there is one of each letter/symbol in the word in every row, column, and 3x3 box. Don't forget the &.

	S					
		V	E			G
	V	U		S	&	H
			O			L
				E	H	G
H				G		S
O	&		U	H	S	

Groundhog Math #2

Use the numbers in the groundhogs below to answer the questions. Numbers may be used more than once.



- The sum of which two groundhogs is 60? _____
- The sum of which two groundhogs is 40? _____
- The sum of which two groundhogs is half of 100? _____
- The difference between which two groundhogs is 19? _____
- Which groundhog can be doubled to make 56? _____
- The product of which two groundhogs is 132? _____
- The product of which two groundhogs is 63? _____
- Which groundhog can be doubled to make six dozen? _____
- Which groundhog is a factor of 100? _____
- Which groundhog is a factor of 81? _____
- Which 3 groundhogs are even when tripled? _____
- What is the sum of all of the groundhogs? _____
- Which groundhog when tripled is half of 90? _____

I LOVE You Brainteaser

Arrange the letters in LOVE so there is only one of each letter in the word in every row, column, and 2x2 box.

			V	
L				
		E	L	

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Name _____



Math Challenge Groundhog Time

There are a number of events planned at Gobbler's Knob for Groundhog Day. Use the clues below to determine what time Punxsutawney Phil's prediction will be announced.

- Clue #1: The gates at Gobbler's Knob open at 10:00 a.m.
Clue #2: Phil's prediction is announced one hour before chainsaw sculpture carving.
Clue #3: Chainsaw sculpture carving begins 2 hours 15 minutes before groundhog BINGO.
Clue #4: Groundhog BINGO begins 8 hours 10 minutes after the gates open.

Show your work in the box below.

Write at least 3 sentences explaining how you found your answer. How did you decide where to start? What did you do first, second, third? How did you keep track of your work? What strategies did you use to solve the problem?



All math challenges come with a page for students to explain their mathematical thinking

Answer Keys for every problem



Math Challenge 200 Medal Count Answer Key

In the 200 Winter Olympics there were the top 10 medal earning countries. Complete the missing numbers in the table using the clues below to help you.

- South Korea won four more silver than bronze medals.
- The United States won five fewer gold medals than Canada.
- Germany won 30 total medals.
- Norway, Austria, and France won the same number of bronze medals.
- Sweden, France, and China won the same total number of medals.
- China won one less gold medal than South Korea.
- Norway and the United States won the same number of gold medals.
- China and Sweden won the same number of silver medals.

Rank	Country	Gold	Silver	Bronze	Total Medals
1	United States	9	15	13	37
2	Germany	10	13	7	30
3	Canada	14	7	5	26
4	Norway	11	8	6	23
5	Austria	4	6	6	16
6	Russia	3	5	7	15



Math Challenge 204 Medal Count Answer Key

In the 204 Winter Olympics there were the top 10 medal earning countries. Complete the missing numbers in the table using the clues below to help you.

- Canada won the same number of gold and silver medals.
- The Netherlands earned one more bronze than gold medals.
- Germany earned four fewer bronze medals than Russia.
- Russia won more silver medals than the United States.
- The Netherlands and United States won the same number of silver medals.
- France won the same number of gold and silver medals.
- Switzerland won 5 fewer total medals than Norway.
- The Netherlands and Russia won the same number of bronze medals.

Rank	Country	Gold	Silver	Bronze	Total Medals
1	Russia	13	11	9	33
2	United States	9	7	12	28
3	Norway	11	5	10	26
4	Canada	10	10	5	25
5	Netherlands	8	7	9	24



Math Challenge Candy Combinations Answer Key

Emily brought five 511g gum drops, candy hearts, gummy bears, and Fun Dip to hand out to her classmates for Valentine's Day. If she gives each classmate 2 different types of candy, how many different candy combinations can she make?

Find an organized way to show all possible combinations and the answer in the box below.

There are 10 different combinations of candy.

1	PS	GO
2	PS	CH
3	PS	GB
4	PS	FD
5	GO	CH
6	GO	GB



Math Challenge ChocoCombos Answer Key

Zane chose 3 chocolates from the treat table during his class Valentine's Day party. There were 8 types of chocolates to choose from: raspberry cream, caramel, double chocolate, peanut butter, nougat, and mint. If all of the chocolates he picks are different, what are all of the combinations Zane could choose?

Find an organized way to show all possible combinations and the answer in the box below.

There are 18 different combinations of chocolates.

1	RC	C	DC	IO	RC	N	M
2	RC	C	PB	II	C	DC	PB
3	RC	C	N	IZ	C	DC	N
4	RC	C	M	IS	C	DC	M
5	RC	DC	PB	H	C	PB	N
6	RC	DC	N	IS	C	PB	M
7	RC	DC	M	IS	C	PB	N
8	RC	PB	N	IS	C	PB	M



Math Challenge Pursuitway's Predictions Answer Key

Every year on February 24, the Grounding Pursuitway Phil predicts the weather. If he sees the shadow the means there will be six more weeks of winter. If he does not, the means that he predicts an early spring. Use the clues below to determine how many times Phil has predicted six more weeks of winter.

Clue #1: Phil has made 122 total recorded predictions.
Clue #2: Phil has predicted six more weeks of winter 56 more times than he has predicted an early spring.

Phil has predicted six more weeks of winter 104 times.

Students should use a guess and check strategy with friendly numbers to solve this problem.

For example:
50 (guess for spring) + 86 (more winter predictions) = 136 winter + 50 spring = 186 (94 over 122)

20 (30 less than last guess for spring) + 86 = 106 winter + 20 spring = 126 (106 over 122 need 16 less)

H = 56 + 102 = 158
S = 56 + 102 = 158
H = 56 + 102 = 158
S = 56 + 102 = 158

16 (spring) + 86 = 102 (winter) + 18 = 122 (correct number sentence)

*Teacher notes: These figures are accurate up until this 20th prediction. Technically there have been 13 years of predictions, but it has not been recorded. The data in the problem reflects only the recorded predictions. Phil's data aren't too impressive. His predictions have been correct less than 10% of the time.

#groundingphil

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Math Challenge Washington's Days in Office Answer Key

George Washington was inaugurated as the first president of the United States on April 30, 1789 and left office on March 4, 1797. How many days was George Washington president? Remember that 1792 and 1796 were leap years.

George Washington was in office for 2,866 days.

1789	April - 1 day May - 31 days June - 30 days July - 31 days August - 31 days September - 30 days October - 31 days November - 30 days December - 31 days Total days in 1789: 365 days
1790	365 days
1791	365 days
1792	366 days (leap year)
1793	365 days



Math Challenge Lincoln's Days in Office Answer Key

Abraham Lincoln served as the sixteenth president of the United States from March 4, 1861 - April 5, 1865. How many days was Abraham Lincoln president? Remember that 1864 was a leap year.

Show your work in the box below.

Abraham Lincoln was in office for 1,591 days.

1861	March - 12 days (3-3-23) April - 30 days May - 31 days June - 30 days July - 31 days August - 31 days September - 30 days October - 31 days November - 30 days December - 31 days Total days in 1861: 365 days
1862	365 days
1863	365 days



Math Challenge Oscar Engravings Answer Key

In late February, the Academy Awards (or Oscars) are awarded to the best films of the previous year. In order to keep the winners secret, an engraved label is put on the Oscar statue for every nominee. The winners label is one put on the Oscars after the awards show. The rest of the labels are recycled. If there are 24 Oscar categories and 5 nominees in each category, how many Oscar labels will be recycled?

Show your work in the box below.

96 engraved labels will be recycled.

24 categories x 5 nominees = 120 total labels

20 engravings x 5 winners = 100 recycled labels

Students could also take away the winning nominees and multiply 24x4 to get the same answer.



Math Challenge Oscar Weight Answer Key

In late February, the Academy Awards are presented to the best films of the previous year. The statuettes for the winners receive a collectible Oscar. Each Oscar weighs 8.5 pounds. 24 total Oscars will be awarded. If the Oscars are divided evenly on 3 tables before the ceremony, how much weight would each of the tables need to hold?

Show your work in the box below.

Each table will need to hold 68 pounds.

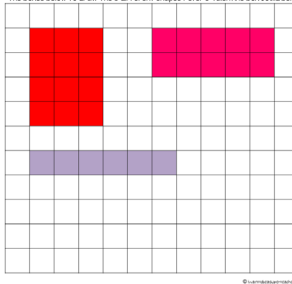
24 Oscars = 3 tables x 8 Oscars per table

8 Oscars x 8.5 pounds apiece = 68 pounds



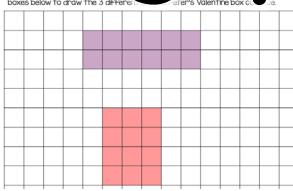
Math Challenge Valentine Box - Perimeter Answer Key

Peters Valentine box is a quadrilateral that has a perimeter of 41 units. Use the boxes below to draw the 3 different shapes Peters' Valentine box could be.



Math Challenge Valentine Box - Answer Key

Peters Valentine box is a quadrilateral that has a perimeter of 41 units. Use the boxes below to draw the 3 different shapes Peters' Valentine box could be.



Math Challenge Hundreds Day Project Answer Key

For the one hundredth day of school Miss Honey wants to do an edible art project with her students. Each of her 24 students will need 100 pieces of candy for the project. If the candy comes wrapped in sets of 10, how many sets of candy will Miss Honey need to buy?

Show your work in the box below.

Miss Honey will need to buy 240 wrapped sets of candies.

24 x 100 = 2400 pieces of candy needed

2400 ÷ 10 = 240 wrapped candies



Math Challenge Grounding Time Answer Key

There are a number of events planned at Gobbler's Knob for Grounding Day. Use the clues below to determine what time Pursuitway Phil's prediction will be announced.

- Clue #1: The gates at Gobbler's Knob open at 3:00 a.m.
- Clue #2: Phil's prediction is announced one hour before the chowchow sculpture carving begins.
- Clue #3: Chowchow sculpture carving begins 2 hours 15 minutes before Grounding BINGO.
- Clue #4: Grounding BINGO begins 8 hours 30 minutes after the gates open.

Pursuitway Phil's prediction will be announced at 7:45 a.m.

Gates open 3:00 a.m. (given in Clue #1)

Grounding BINGO begins 1:30 a.m. (8 hours 30 minutes after 3:00 a.m. using Clue #4)

Chowchow sculpture carving begins 8:45 a.m. (2 hours 15 minutes before 1:30 a.m. using Clue #3)

Phil's predictions announced 7:45 a.m. (1 hour before 8:45 a.m. using Clue #2)



Grounding Math #1 Answer Key

Use the numbers in the groundings below to answer the questions. Numbers may be used more than once.

- The sum of which two groundings is 117? **11, 14**
- The sum of which two groundings is half of 70? **15, 10**
- The difference between which two groundings is $87 \div 10$ or $15 \div 17$? **12, 13**
- Which grounding can be doubled to make 24? **12**
- The difference between which two groundings is $12 \div 6$, $15 \div 4$, or $9 \div 3$? **12, 13**
- Which grounding can be doubled to make 18? **9**
- Which grounding can be doubled to make one dozen? **6**
- Which grounding can be tripled to make 18? **3**
- The difference between which two groundings is 7? **11, 14**



Grounding Math #2 Answer Key

Use the numbers in the groundings below to answer the questions. Numbers may be used more than once.

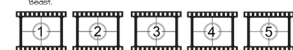
- The sum of which two groundings is 60? **11, 14**
- The sum of which two groundings is 40? **28, 12**
- The sum of which two groundings is half of 100? **25, 15**
- The difference between which two groundings is 19? **28, 9**
- Which grounding can be doubled to make 58? **29**
- The product of which two groundings is $132 \div 12$ or $11 \div 12$? **11, 12**
- The product of which two groundings is $63 \div 9$ or $7 \div 9$? **9, 7**
- Which grounding can be doubled to make six dozen? **36**
- Which grounding is a factor of 100? **25**
- Which grounding is a factor of 81? **9**
- Which 3 groundings are even when tripled? **28, 12, 36**
- What is the sum of all of the groundings? **132**
- Which grounding when tripled is half of 40? **15**
- Write your own grounding math question like the ones above on the back of this page. Include the question and all possible answers.



Math Challenge Now Showing Answer Key

The classic Oscar best picture nominees are being shown at a local movie theater. Use the clues below to determine which film is being shown in which theater and complete the Now Showing sign.

- Toy Story 3 is playing between E.T. and Star Wars.
- E.T. is playing two theaters down from Mary Poppins.
- Beauty and the Beast is not playing in Theater 1.
- Star Wars is playing two theaters down from Beauty and the Beast.



NOW SHOWING

Oscar Best Picture Nominees

Theater 1	Mary Poppins
Theater 2	Star Wars
Theater 3	Toy Story 3
Theater 4	E.T.



Heart Shaped Boxes Answer Key

There are 5 heart shaped boxes of chocolates. Each box has a different flavor of chocolates. Use the clues below to determine what flavor of chocolates are in each box.

- The double chocolate box is three boxes away from the peanut butter.
- The mint chocolates are to the right of the peanut butter.
- There is one box between the mint and the lemon chocolates.
- The vanilla cream box is to the right of the lemon.

Cut out the cards at the bottom of the page to help you if you would like. Then write your answers in the boxes below.

Peanut Butter	Lemon	Vanilla Cream	Mint	Double Chocolate
---------------	-------	---------------	------	------------------



Winter Athletes Answer Key

Vid, James, Julie, and Tara all competed in five Winter Games. They each competed in a different Winter Olympic event (bobsley, skiing, speed skating, and luge). They each earned at least one Olympic medal (1 gold, 1 silver, 1 bronze, 2 golds).

- Vid does not play hockey.
- The skier came in second place.
- The girls Julie and Tara competed in bobsley and skiing.
- Tara does not know how to ski.
- The speed skater earned more than one Olympic medal.
- James came in third place in his sport.

Show your work and your answer here:



You've Got Mail Brainteaser Answer Key

There are 5 Valentines Day letters in a row. Use the clues below to determine which letter belongs to each person.

- Bella's letter is next to Joann's.
- Kurt's letter is next to Myra's.
- There are two letters between Scott and Myra's.
- Kurt's letter is to the left of Myra's.
- There is one letter between Bella's and Myra's.

You may cut out the cards at the bottom of the page to help you solve the problem if you would like. Then write your answer in the boxes below.

Kelton	Myra	Joann	Bella	Scott
--------	------	-------	-------	-------



Valentine Cards Brainteaser Answer Key

There are five valentine cards in a row. Use the clues below to determine whose valentine card is whose.

- Ella's card is next to June's.
- Kurt's card is between Tara and Christie's.
- Christie's card is next to Ella's.
- There is only one card to the right of Ella's.

You may cut out the cards at the bottom of the page to help you solve the problem if you would like. Then write your answer in the boxes below.

Don	Kurt	Christie	Ella	June
-----	------	----------	------	------

Christie	Don	Ella	June	Kurt
----------	-----	------	------	------



100 Hundreds Day 100 Equations Challenge Answer Key

Using only the digits 1 and 0, write a number sentence that is equal to each number 1-100 in the box next to the number. You can repeat the digits 1 and 0 as many times as you would like and can use addition, subtraction, multiplication, or division as part of your number sentences.

1	1+0=1	10	10=10
2	1+1=2	17	10+7=17
3	1+1+1=3	18	10+8=18
4	1+1+1+1=4	19	10+9=19
5	10-5=5 or 1+1+1+1+1=5	20	10+10=20
6	1+1+1+1+1=6	31	10+21=31
7	10-3=7	32	10+22=32
8	10-2=8	39	10+29=39



LOVE Brainteaser Answer Key

Arrange the letters in LOVE so there is only one of each letter in the word in every row, column, and 2x3 box.

L	O	E	V
V	E	L	O



1 LOVE You Brainteaser Answer Key

Arrange the letters in LOVE so there is only one of each letter in the word in every row, column, and 2x3 box.

O	E	L	V
L	V	O	E



HEARTS Brainteaser Answer Key

Arrange the letters in HEARTS so there is only one of every letter in the word in every row, column, and 2x3 box.

A	E	H	T	R	S
S	R	T	H	A	E
E	H	R	S	T	A



WINTER Sports Brainteaser Answer Key

Arrange the letters in WINTER so there is only one of every letter in the word in every row, column, and 2x3 box.

I	N	W	R	T	E
R	E	T	N	W	I
E	W	I	T	N	R



LOVE & HUGS Brainteaser Answer Key

Arrange the letters and symbol in LOVE&HUGS so there is only one of each letter/symbol in the word in every row, column, and 2x3 box. Don't forget the &.

G	S	H	&	U	O	L	V	E
L	O	&	V	E	H	U	S	G
E	V	U	G	L	S	&	H	O
S	E	G	H	O	U	V	&	L
&	U	O	L	V	E	H	G	S
H	L	V	S	G	&	E	O	U
O	&	E	U	H	G	S	L	V
V	G	S	E	&	L	O	U	H
U	H	L	O	S	V	G	E	&



Math Challenge Resource

Conversions & Calendar

1 mile = 5,280 feet
1 yard = 3 feet
1 foot = 12 inches

1 pound (lb.) = 16 ounces (oz.)

1 gallon = 4 quarts
1 quart = 2 pints
1 pint = 2 cups
1 cup = 8 ounces

1 dozen = 12

1 year = 365 days
1 leap year = 366 days
1 week = 7 days

January = 31 days
February = 28 days
(In a leap year = 29 days)
March = 31 days
April = 30 days
May = 31 days
June = 30 days
July = 31 days
August = 31 days
September = 30 days
October = 31 days
November = 30 days
December = 31 days

Definitions

Sum = the answer to an addition problem

Product = the answer to a multiplication problem

Quotient = the answer to a division problem

Factors = the numbers that divide evenly into another number (4 and 5 are factors of 20 since 20 can be divided evenly by 4 and 5)
Multiple = The product of a number and any other whole number (20 is a multiple of 5 since $5 \times 4 = 20$)

Perimeter = The measurement of the distance around the outside of an object

Area = The measurement of the square units that can cover the inside of a shape

Numbers

1 one
2 two
3 three
4 four
5 five
6 six
7 seven
8 eight
9 nine
10 ten
11 eleven
12 twelve
13 thirteen
14 fourteen
15 fifteen
16 sixteen
17 seventeen
18 eighteen
19 nineteen
20 twenty
30 thirty
40 forty
50 fifty
60 sixty
70 seventy
80 eighty
90 ninety
100 one hundred
1,000 one thousand

Student Resource to help with conversions and math vocabulary, Notes for teachers, and Clickable Table of Contents

How to Use Math Challenges & Brainteasers in Your Classroom: A Few Ideas



- ★ Use these as **extension activities** for math contracts. You can read more about this strategy and [receive a free editable math contract at the blog HERE](#).
- ★ Use a challenge or brainteaser as a **homework option** for students who need a challenge or let them **replace a simple homework assignment** with the challenge to **show parents** how well **you're differentiating**.
- ★ Use a math challenge or brainteaser as a "number talk" problem to **start out your daily math class**. Work through it as a class or let groups to talk through it and solve it.
- ★ Give a challenge or brainteaser to a **small group** of students as one of the **independent math** **rotation** or use them with your advanced students.
- ★ Use the problem as a **practice activity** during a math lesson.

Clickable Table of Contents

[Math Challenges](#) (Logical thinking, guess and check, adding and subtracting 1 and 2-digit numbers)
[2014 Math Challenges](#) (Logical thinking, guess and check, adding and subtracting 1 and 2-digit numbers)
[Combinatorics](#) (Combinations of 2, organizing data)
[Combinatorics](#) (Combinations of 3, organizing data)
[Oscar Weight Predictions](#) (Guess and check, 2-digit addition)
[Shipping Office](#) (Calendar math, 2 and 3-digit addition, organizing data)
[Shipping Office](#) (Calendar math, 2 and 3-digit addition, organizing data)
[Oscar Weight](#) (Addition, subtraction, multiplication)
[Oscar Weight](#) (Addition with halves, division, weight)
[Valentine Box - Perimeter](#) (Logical thinking, addition, perimeter, guess and check)
[Valentine Box - Area](#) (Logical thinking, addition, area, guess and check)
[Hundreds Day Project](#) (Multiples of ten, multiplication, division)
[Groundhog Time](#) (Elapsed time, addition and subtraction with minutes and hours)

*All math challenges come with a lined page for written responses focused on strategies students used to solve the problem

Brainteasers

[Groundhog Math #1](#) (Sums and differences with numbers to 20, doubling and tripling numbers)
[Groundhog Math #2](#) (Sums, differences, products, and multiples with numbers to 50)
[Oscar Screenings](#) (Logical thinking, guess and check)
[Heart Shaped Boxes](#) (Logical thinking, guess and check)
[Winter Athletes](#) (Logical thinking, guess and check)
[You've Got Mail](#) (Logical thinking, guess and check)
[Valentine Cards](#) (Logical thinking, guess and check)
[Hundreds Day 100 Equations Challenge](#) (Basic arithmetic using digits 1 and 0)
[LOVE Logic Puzzle](#) (Logical thinking, guess and check, easier)
[I LOVE You Logic Puzzle](#) (Logical thinking, guess and check, easier)
[HEARTS Logic Puzzle](#) (Logical thinking, guess and check, more difficult)
[WINTER Sports Logic Puzzle](#) (Logical thinking, guess and check, more difficult)
[LOVE & HUGS Logic Puzzle](#) (Logical thinking, guess and check, most difficult)

Also includes

[Student resource page](#) with common conversions and extra info students might need to help solve these problems. Perfect to use for homework or centers!

[Interactive Google Slides version](#)

[Google Slides FAQ and Tutorial Videos](#)

[Answer keys](#) for every problem

Links to Google Slides versions, Google FAQ, and Tutorial Videos



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If you have questions about how to share the slides with students, please see the next two pages which include Google Slides™ FAQ and Tutorial Videos.

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How to Use the Link & Make a Copy (+ Rename Your New File)

Click the link in this document → You will be directed to a page that asks "Would you like to make a copy?" → Select "Make a copy"



To rename the file, in the top left corner of the new file, click the title "Copy of ..." and you can type your new title

How to Find Your New File

Log in to your Google Drive (drive.google.com) → Click "My Drive" from the left navigation bar if not already selected → Your new file will be listed



How to Share Slides with Students (if not using Google Classroom)

Option 1: Have Students Make a Copy

Open the Slides from Google Drive → Select the "Share" button near the top right corner → Select "Get Shareable Link" from the top right of the pop-up → Select the link, copy/paste however you usually send information to students → By default, this link will allow anyone to VIEW the Slides. For students to make their own copy of this file to work in, they must go to "File" → "Make a copy"

Option 2: Share a Link that Gives Full Control

Need extra help? Check out these Google Slides Tutorial Videos

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To ADD a slide: Open a Slides presentation → Select the "+" button in the top left corner that says "New slide" when you hover over it.



To DELETE a slide: Open a Slides presentation → Select the slide you would like to delete → Press "Delete" on your keyboard OR right-click the slide and select "Delete"

How to Print Slides

To print each slide as its own page, go to "File" → "Print"



To adjust print settings such as how many slides per page and whether or not to include notes for Slides, go to "File" → "Print settings and preview" → Adjust print settings in the dropdown menu across the top → Select "Print"

If Using Google Classroom:

How to Share Slides with Google Classroom

In Google Classroom, select the "Classwork" tab → Select the "+ Create" button → Select "Assignment" → Select "Add" → "Google Drive" → Navigate to your Slides → From the dropdown menu, select "Make a Copy for Each Student" so everyone has their own copy to edit (if that is what you want)



How Students Work in Slides with Google Classroom

In Google Classroom, select the "Classwork" tab → Select the assignment and click on the Google Slides link with your name on it → Complete the task(s)

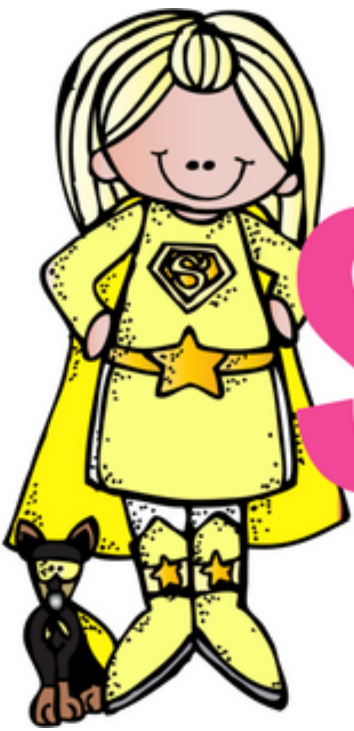


To submit, go back to Google Classroom → "Classwork" tab → Select the assignment → Select "View assignment" → On the right side, select the "Submit" button → Confirm that you are submitting the correct assignment

How to View Student Work with Google Classroom

In Google Classroom, select the "Classwork" tab → Select the assignment and click on "Turned in" → Select the thumbnail image or name of the file → Use the bar on the right to enter a grade and comments (optional) → Select "Return" in the top right corner so students will regain access to the file and be able to see their feedback





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