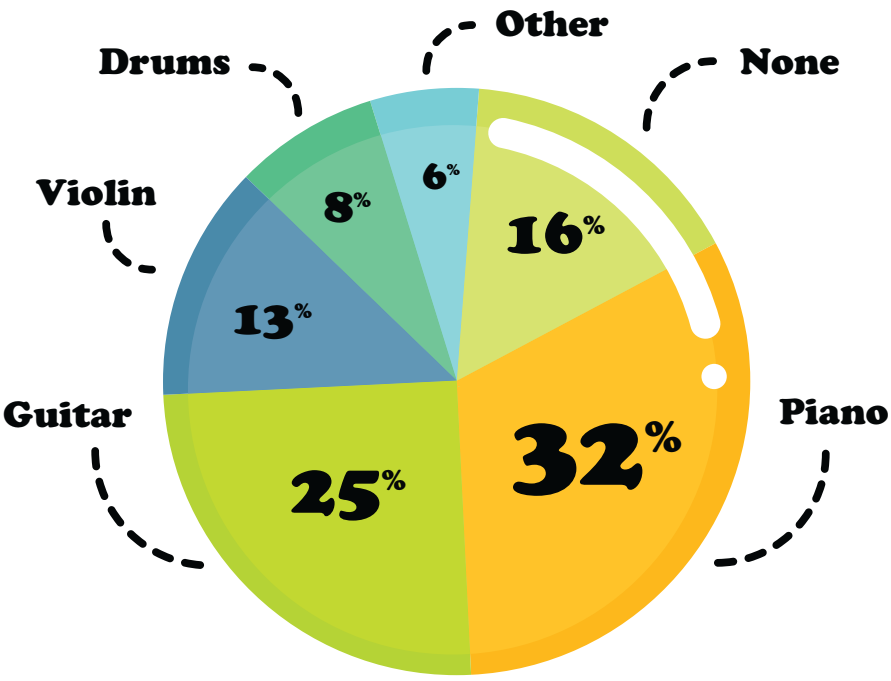
Good Odds

Statistics & Probability

4th Grade

600 students were asked what instrument they play.



How many students play **Drums?**

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Good Odds: Statistics and Probability

** Has an Answer Sheet*

PROBABILITY

Bag O' Stuff: Cards

There is a bag of items.
Answer the questions using the pictures of what's in the bag.

1. What is the probability of pulling a **card of hearts** out of the bag? 5/20 = 1/4

2. What is the probability of pulling a **black card** out of the bag? _____

3. What is the probability of pulling an **Ace** out of the bag? _____

4. What is the probability of pulling a **red four** out of the bag? _____

5. What is the probability of pulling either a **card of spades or clubs** out of the bag?

   _____

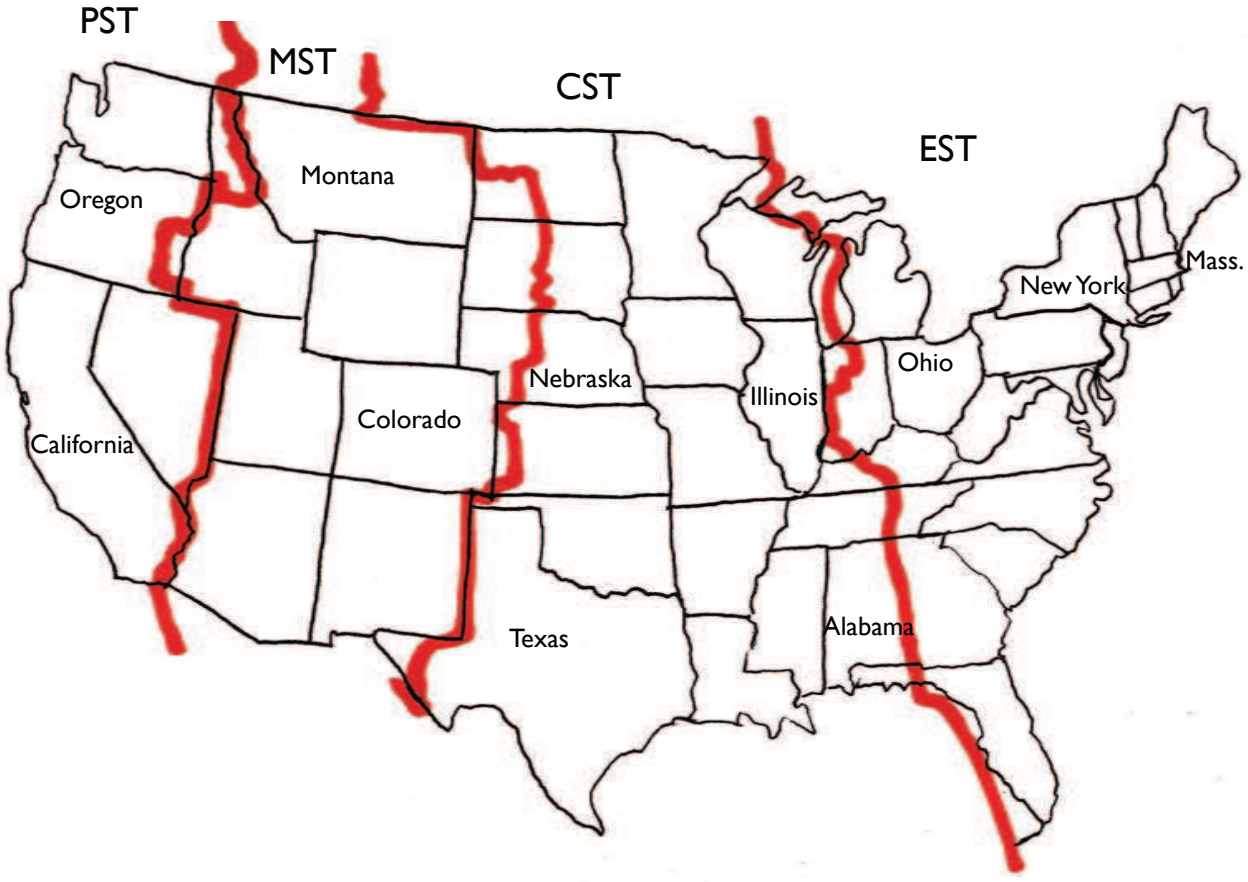
6. What is the probability of pulling a **three of diamonds** out of the bag?

   _____

Learning The Time Zones: USA

There are 24 time zones on Earth. The USA falls within four of those time zones. If you're moving east, each time you enter a new time zone the local time increases by one hour. For instance, if it is 1:30 p.m. in California, it is 2:30 p.m. in Montana. If it is 6 p.m. in New York, it is still 5 p.m. in Illinois.

The lines dividing the time zones are marked in red. Using the illustration, answer the questions to the left. Make sure to include the name of the time zone in your answers.



1. Daniel and Jody are flying to Boston for a wedding. If their plane leaves San Francisco at 7 a.m. PST and lands in Boston at 3:30 p.m. EST, what time will it be in San Francisco when they arrive in Boston?

2. Carrie took a 24-hour train ride from Colorado to Illinois. If she arrived in Illinois at 2:45 pm CST the next day, when did she leave Colorado?

3. If a live New Year's Eve TV special begins broadcasting at 10 p.m. EST in New York, what time should viewers in Oregon tune in?

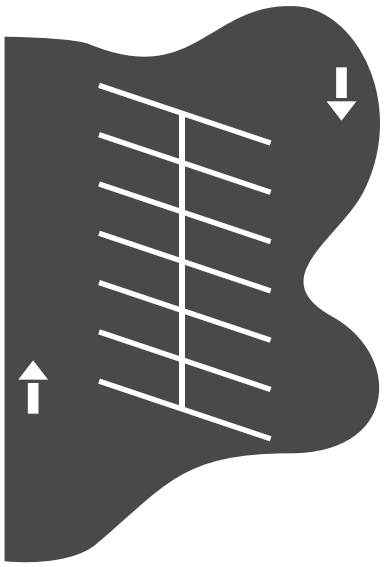
Merchandise Multiplication

4th Grade

Use multiplication to solve the following problems. Show your work.

The Nguyen family gets movies from MovieMail home video delivery service. They get 3 movies at the beginning of the week and return them at the end of each week. If they continue this pattern, how many movies will they see in one year? (1 year = 52 weeks)

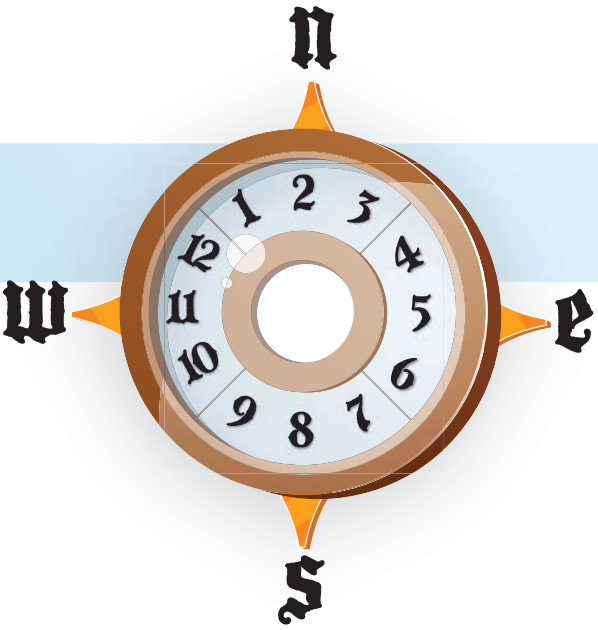
Look at the diagram of a portion of the local grocery store's parking lot. If there are 15 rows of parking spaces in the lot like this one, how many cars can the parking lot fit in total?



Mr. Hayes is having friends over to watch basketball and needs to buy snacks. He buys 5 boxes of crackers. In each box there are 3 sleeves of 24 crackers. How many crackers did he buy all together? This is a two step problem. Try multiplying the numbers in different orders. Do you get the same answer?

Mr. Chang is comparing television screen sizes. Screen #1 is 18 by 23 inches and screen #2 is 19 by 22 inches. Which television has the larger screen?

Steer & Simplify #1



Navigate the treacherous seas by simplifying the following fractions. Use the compass on the right to guide you. Start at the red arrow and go north, south, east or west to the next square with each fraction your reduce. Draw a line to track your journey. Show your work.

Compass Instructions: *Once you reduce a fraction completely, look at its denominator and then find that number on the compass and move in the direction it points.*

$\frac{9}{54} = \_\_\_$ $\frac{6}{15} = \_\_\_$ $\frac{6}{8} = \_\_\_$ $\frac{27}{45} = \_\_\_$

$\frac{16}{24} = \_\_\_$ $\frac{24}{27} = \_\_\_$ $\frac{35}{84} = \_\_\_$ $\frac{18}{60} = \_\_\_$

$\frac{15}{30} = \_\_\_$ $\frac{5}{40} = \_\_\_$ $\frac{32}{40} = \_\_\_$ $\frac{4}{6} = \_\_\_$

$\frac{9}{18} = \_\_\_$ $\frac{28}{40} = \_\_\_$ $\frac{9}{27} = \_\_\_$ $\frac{40}{55} = \frac{8}{11}$

11 is between 9 and 12, so go west

Probability

Answer the probability questions regarding the worms the chicken will eat.

1. What is the probability the chicken will catch a blue worm?

_____

2. What is the probability the chicken will catch a green worm?

_____

3. Which worm is the least likely to get caught by the chicken?

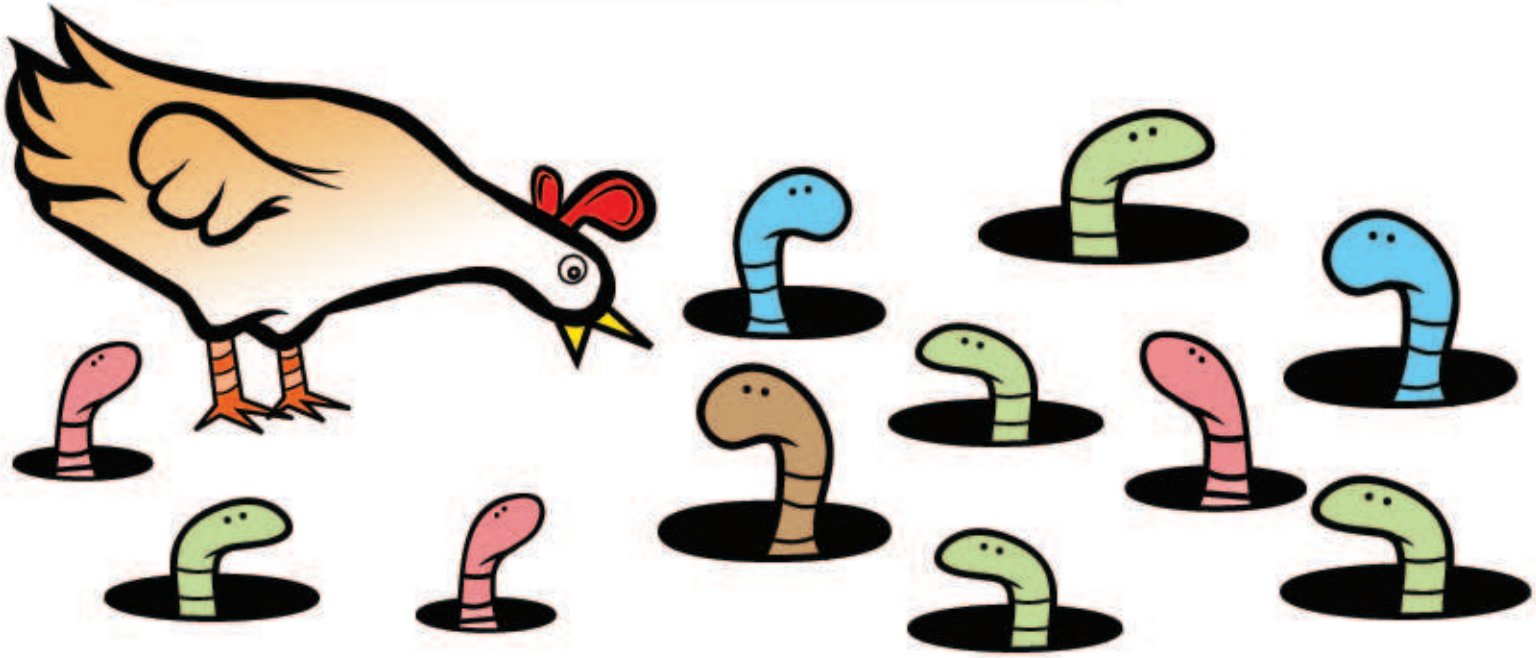
_____

4. What would the probability of the chicken getting a blue worm be if we added 3 more blue worms?

_____

5. What would the probability of the chicken getting a brown worm be if we added 2 more brown worms?

_____



DIVISION WORD PROBLEMS

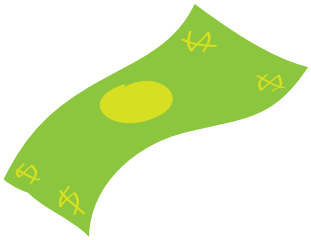
1. Billy receives $15 every month for allowance. He puts $7 of his allowance into a piggy bank until his piggy bank has $119. How many months has he been saving part of his allowance?

2. Miss Amy collected $6 each from her students for their upcoming field trip. If all of her students went on the field trip she would collect $192. How many students are in Miss Amy's class?

3. Mr. Chong is also planning for his class to go on the same trip. He collects $6 from each of his students too, but one of his students could only pay $3 making his total $219. How many students are in his class?

4. Kari gets $20 every week for lunch money. She sets aside $2 every school day. How many weeks did it take for her to save up $65?

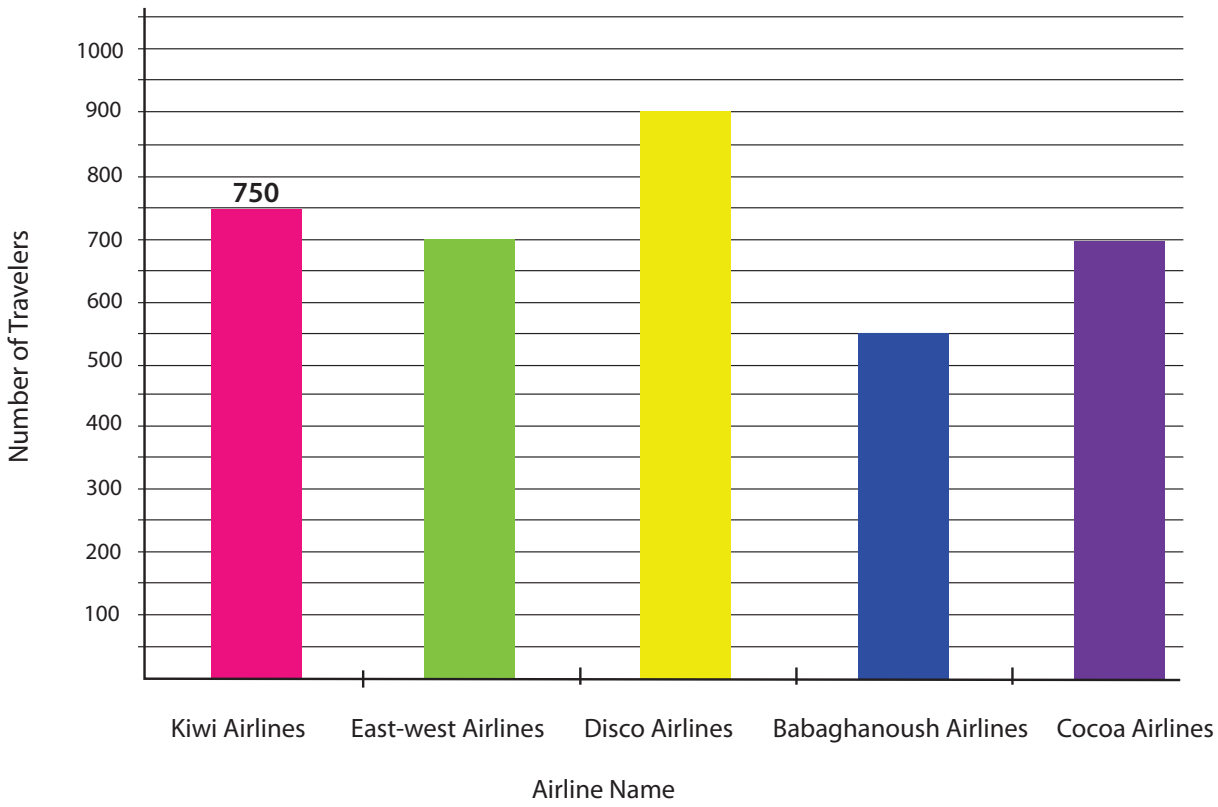
5. Susan is selling raffle tickets for $4. She collects a total of $284. How many tickets did she sell?



Go Abroad!: Practice Reading a Bar Graph

4th Grade

Read the records of travelers using airline services. Then answer the questions below. Show your work.



1. What unit of measurement is used to express the airlines' popularity?

2. Write a number at the end of each bar to indicate the number of travelers in each airline.

3. Are there any two airlines that have the same number of travelers? What are they?

4. If East-west Airlines had 250 more travelers, what rank would the Kiwi Airlines be?

5. How many more travelers does the Babaghanoush airline need to be the top airline among these five?

Classroom Math: Multiplication Word Problems

4th Grade

Math isn't just for math class. It is used to solve problems in every subject. Help Mr. Hammond's class figure out their problems using math. Show your work

Henry wants to see how many different colored crayons are in the crayon box. If there here are 4 rows of 19 crayons, how many different colors are there?

_____

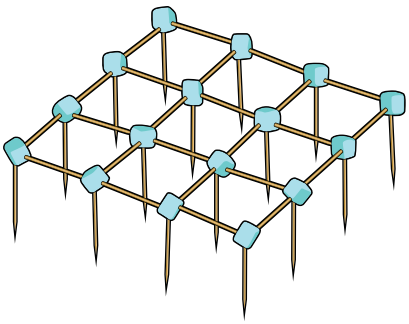
Mikey is typing in the computer lab and typing at 23 words per minute. If he types for 11 minutes, how many words does he type?

_____

All of the students have a vocabulary assignment every week with 13 new words. If the school year is 40 weeks long, how many new words will they learn?

_____

Jeremy is building a toothpick skyscraper. Look at the picture below of the first floor. How many tooth picks will it take to build 12 stories? How many marshmallows will it take to build 12 stories?



_____

It's the day before Valentine's Day and Shelley needs to get Valentine cards for all of her classmates. The desks are arranged in a rectangle 7 rows wide and 5 rows long. If there are 3 desks that are empty, how many students are in the class?

_____

Solve the word problems. Show your work and circle your answers.

1. Erin and her brother Eli were planting a garden. They planted 312 zinnia seeds, 267 daisy seeds, and 137 geranium seeds. A week later, they found that 256 zinnias, 182 daisies and 64 geraniums had sprouted. How many of the seeds they planted did not sprout?

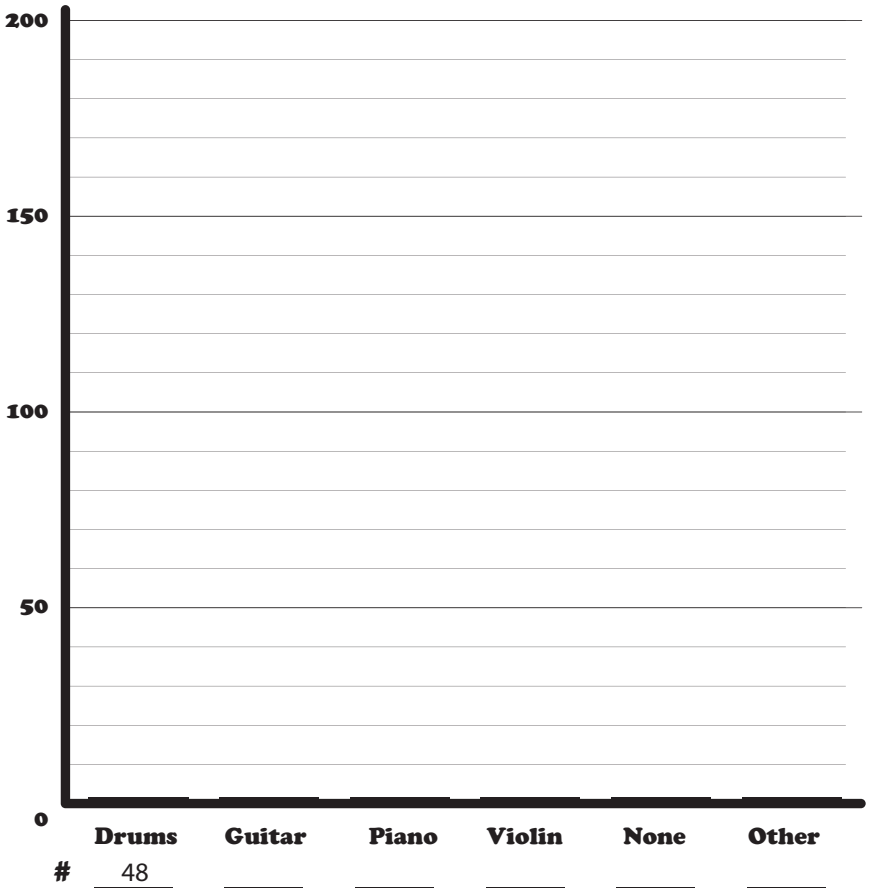
2. Erin opened 3 packets of flower seeds. Each packet contained 100 seeds. On her way out to the garden to plant them, Erin tripped and spilled 25 rose seeds, 32 mum seeds and 56 jasmine seeds. How many seeds did Erin have left altogether?

3. On Saturday, Eli planted 234 carrot seeds, 73 celery seeds and 121 potato seeds. On Sunday, he planted 168 rhubarb seeds and 265 leek seeds. On which day did Eli plant more seeds? How many more?

4. On Sunday morning, Erin had an hour and fifteen minutes before she had to leave the house to meet her friend Elena. Erin spent 32 minutes watering the garden and 26 minutes weeding. How many minutes did Erin have left before she had to leave to meet Elena?

Instrument Interviews

Isabela interviewed 600 students at her elementary school and asked them what musical instrument they play. The results of her interviews are displayed on the pie graph below. Convert the percentages to whole numbers and fill out the bar graph.



Convert the data:

1. Convert each percentage to a decimal value by moving the decimal 2 places to the left.
Example: Drums = 8% → .08

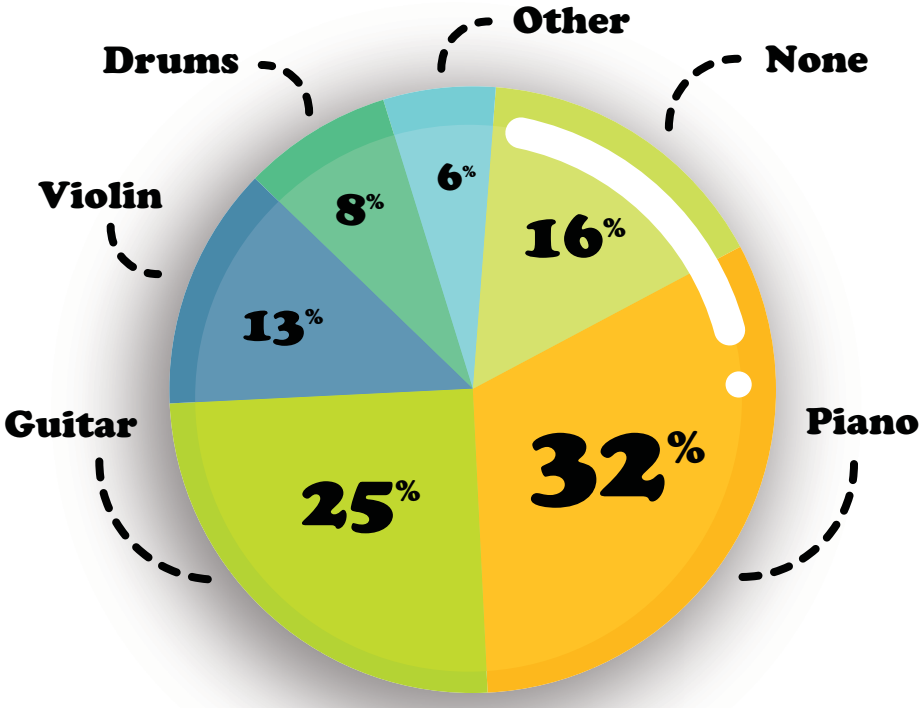
2. Multiply the number of students interviewed by the decimal value of each percentage.

Example:
Drums =

600 → Factor 1: 0 decimal places
x .08 → Factor 2: 2 decimal places
48.00 → 48 drummers

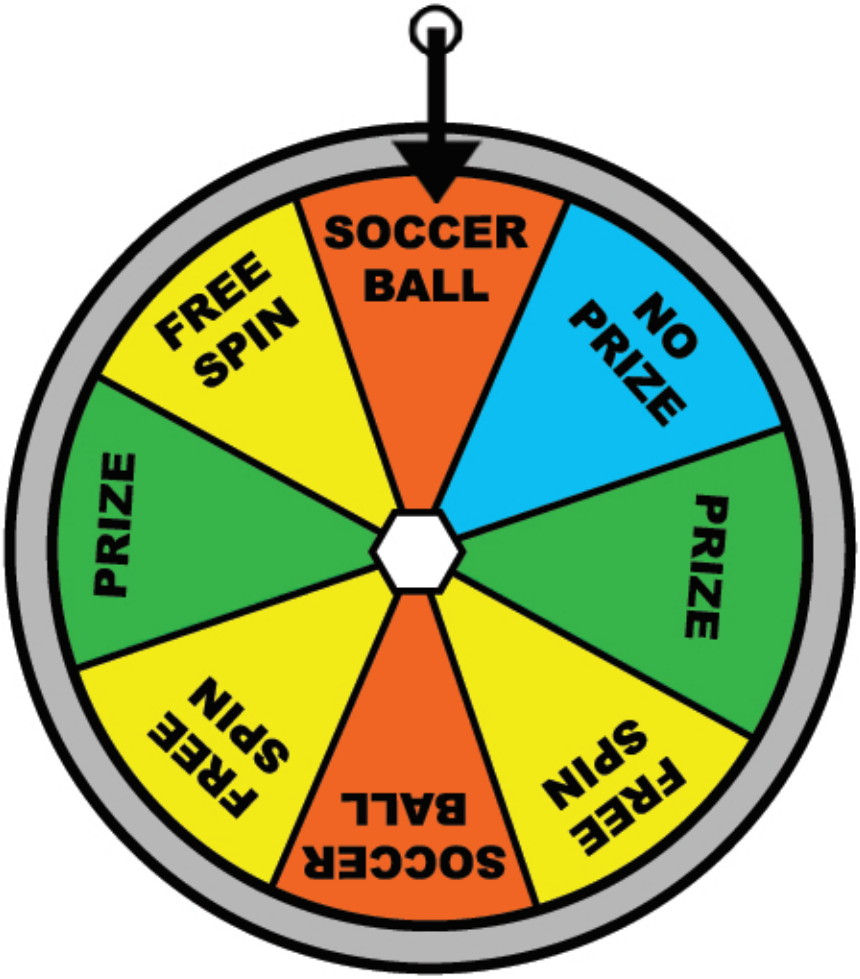
2 decimal moves

Don't forget to move the product's decimal point two places to the left.



Prize Wheel Probability

Answer the probability questions related to the prize wheel.



1. If you spin the wheel, what is the probability that the arrow will point to "soccer ball"?

_____

2. What is the probability that the arrow will point to "no prize"?

_____

3. What is the probability that the arrow will point to "free spin"?

_____

4. What is the probability that the arrow will point to "prize"?

_____

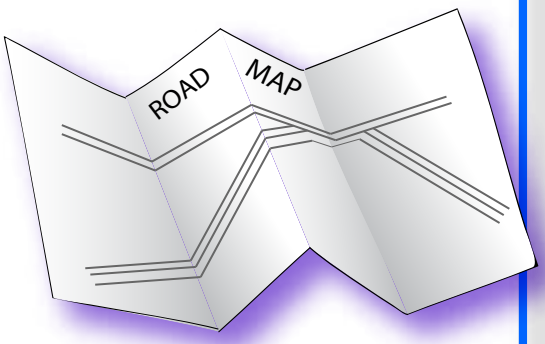
Solve the word problems. Show your work and circle your answers.

1. Joey and his family are taking a road trip. On Monday, they travel 68 miles. On Tuesday, they travel 25. On Wednesday, they travel 33 miles. What is the average number of miles they drove per day?

2. Joey has three brothers: Jonathan, Jacob, and Jack. Jacob is older than Jonathan but younger than Joey. Jack is younger than Jonathan. List the four boys in order from oldest to youngest.

3. Joey wants to figure out how many minutes his family has spent on the road. On Monday, they traveled for 3 hours. They drove for 1 1/2 hours on Tuesday and another 1 1/2 hours on Wednesday. How many minutes have they traveled in all?

4. Joey and his family plan to visit the Grand Canyon, Yellowstone National Park, and the Washington Monument. They will travel 1,323 miles to get to the Grand Canyon. From there, they'll drive 846 miles to Yellowstone. Finally, they will travel 2,166 miles to get to the Washington Monument. How many miles will they travel altogether?



Family Vacation Multiplication

The Smiths are going on a family vacation. Use multiplication, addition, and subtraction to solve the following problems. Perform other operations as needed to help find the answers. Show your work.

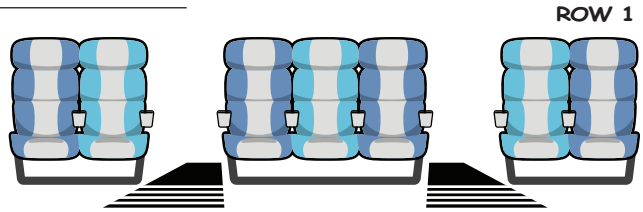
Driving to the airport, the Smiths needed to fill up on gasoline. Gasoline costs 3 dollars for one gallon. If their tank holds 16 gallons, and they already have 3 gallons filled, how much money will it cost to fill the car's tank completely?

The Smiths want to visit a museum and must pay to park. They are going to be gone for 4 hours. The price of parking is as follows:

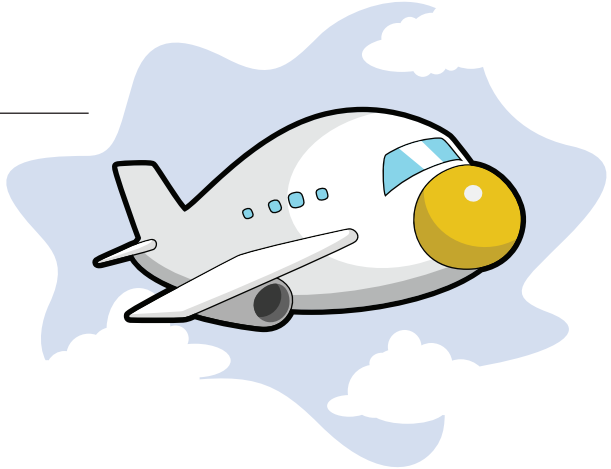
1 Quarter = 15 minutes
1 Dime = 5 minutes
1 Nickel = 2 minutes

The Smiths have 8 quarters, 12 dimes and 14 nickels. Do they have enough to park for 4 hours? (Remember: 60 minutes = 1 hour)

The Smiths board the airplane to head back home. The flight attendant wants to count how many passengers are on board. Every row consists of 2, 3, and 2 seats each (see picture below). If there are 51 horizontal rows, and 13 seats are empty, how many passengers are on board?



In total, the Smiths were flying in an airplane for 14 hours. If the airplane cruises at approximately 512 miles per hour, about how many miles did they travel all together?

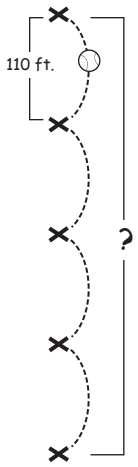


Athletic Arithmetic:
Multiplication word problems

4th Grade

Practice your multiplication skills by answering the following word problems. Show your work.

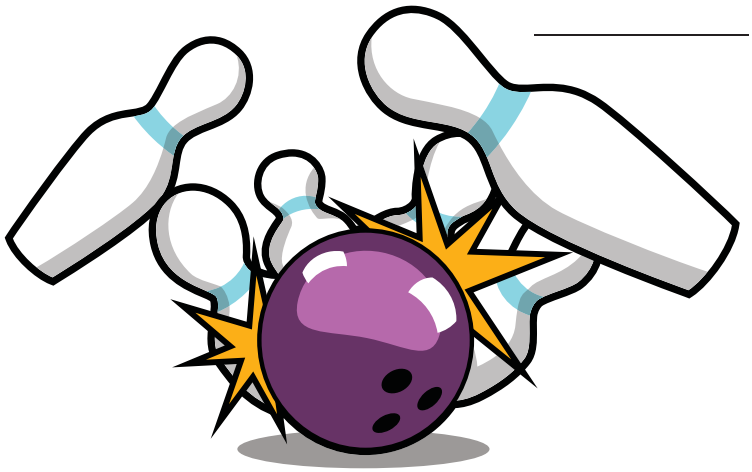
The Springfield Giants are practicing their relay throws. If there are 5 people in the relay and 110 feet between them, how far does the ball travel when it reaches the last player? Think about the number of throws it takes to make it to the end of the relay.



A football field is 100 yards long and 50 yards wide. What is the entire area of the field? If the end zone extends 10 yards beyond each goal line. What is the entire area including both end zones? Remember, Area = Length x Width.

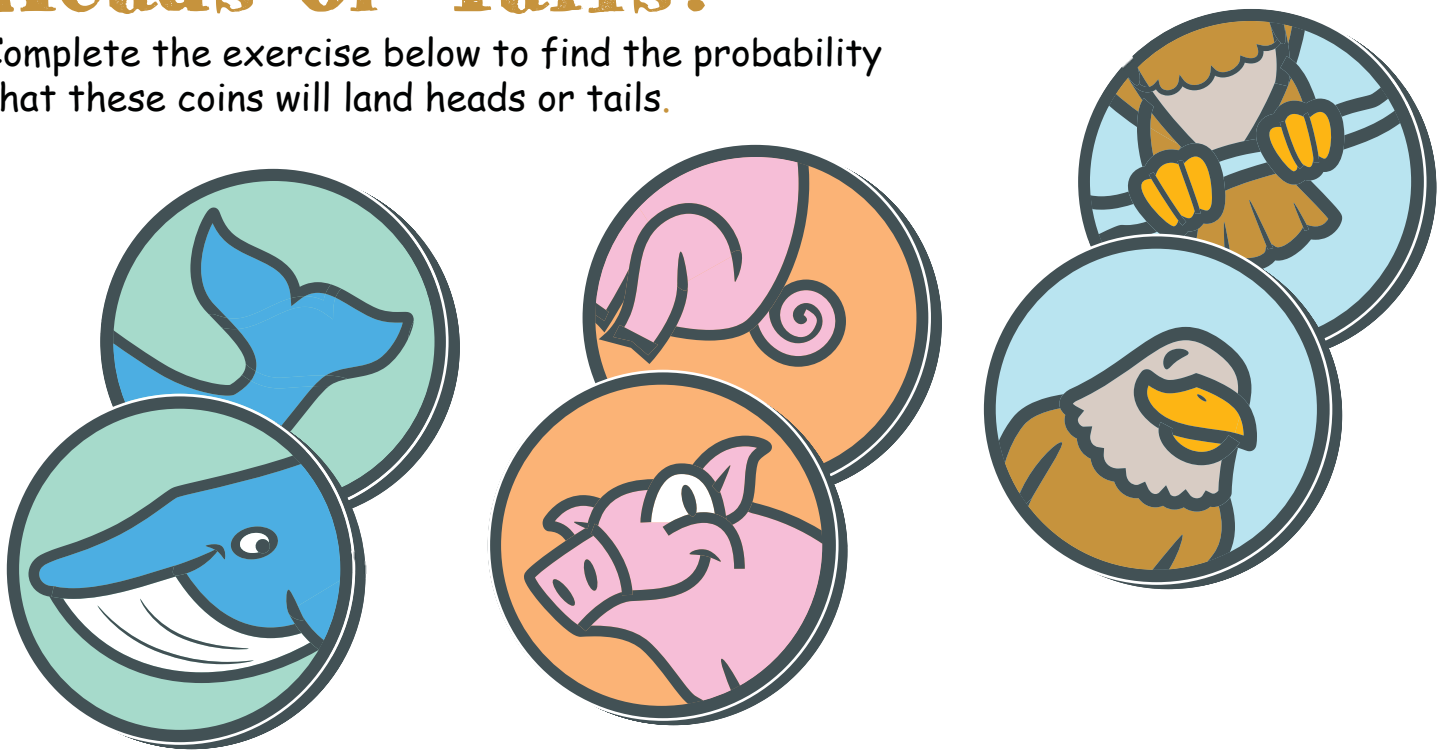
The Ladybugs basketball just finished another close game. They scored 12 3-point baskets, 17 2-point baskets, and 8 1-point baskets. If the other team scored 75 points, did the Ladybugs score enough to win?

Casey is practicing her bowling technique. She rolled 14 attempts. In 4 of them she knocked down 8 pins, in 3 she knocked down 9, and she knocked down all 10 in the rest. How many pins did she knock down in total?



Heads or Tails?

Complete the exercise below to find the probability that these coins will land heads or tails.



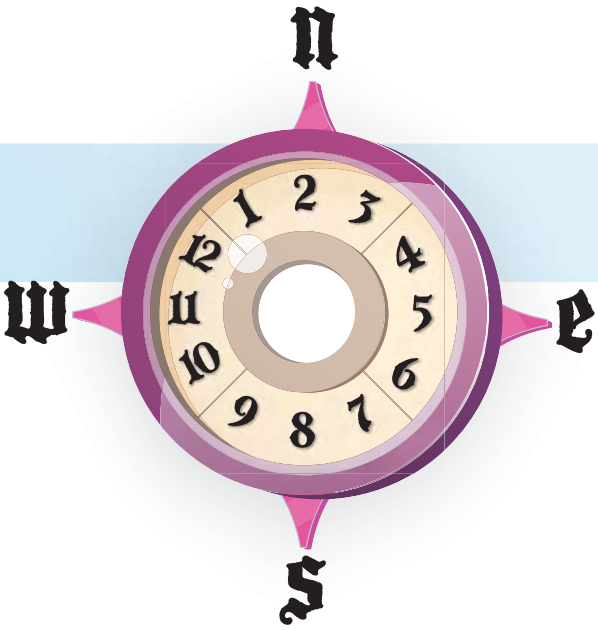
Write out the different combinations of heads and tails if all three coins are tossed at once. Then answer the questions.

Remember: Probability is the likelihood an event will occur expressed as a fraction.

	Whale	Pig	Eagle
1	Heads	Heads	Heads
2			
3			
4			
5			
6			
7			
8			

- What is the probability that two of the coins will land heads?
- What is the probability that at least one coins lands tails up?
- What is the probability that the whale coin lands heads up?
- What is the probability that the whale lands heads, the pig coin lands tails, and the eagle coin lands heads?

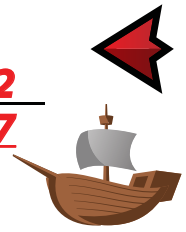
Steer & Simplify #3



Navigate the treacherous seas by simplifying the following fractions. Use the compass on the right to guide you. Start at the red arrow and go north, south, east or west to the next square with each fraction your reduce. Draw a line to track your journey. Show your work.

Compass Instructions: *Once you reduce a fraction completely, look at its denominator and then find that number on the compass and move in the direction it points.*

$\frac{15}{40} = \_\_\_$ $\frac{27}{90} = \_\_\_$ $\frac{5}{60} = \_\_\_$ $\frac{12}{42} \overset{\div 6}{=} \frac{2}{7}$



$\frac{12}{30} = \_\_\_$ $\frac{27}{72} = \_\_\_$ $\frac{8}{16} = \_\_\_$ $\frac{7}{63} = \_\_\_$

$\frac{2}{16} = \_\_\_$ $\frac{30}{55} = \_\_\_$ $\frac{7}{14} = \_\_\_$ $\frac{15}{24} = \_\_\_$

$\frac{11}{55} = \_\_\_$ $\frac{12}{54} = \_\_\_$ $\frac{8}{12} = \_\_\_$ $\frac{49}{70} = \_\_\_$

MULTIPLICATION WORD PROBLEMS

1. Bennet saves $.75 from his lunch money every day. If he saves for 12 weeks how much money will he have?

2. Mr. Hansen buys a cupcake for each student in his class for the class party. Each cupcake costs $1.25. However there is a discount where each batch of 10 cupcakes are only $1. He buys 34 cupcakes. How much did Mr. Hanson pay for all 34 cupcakes?

3. Emi buys 15 baskets of strawberries to share with her class. Each basket has 12 strawberries. How many strawberries does she have to share with the class?

   Each basket costs $ 2.25. How much did Emi spend on strawberries?

4. Timothy mows his neighbor's lawn for $6.50 per week. He continues to do this for 37 weeks until winter. In winter he shovels snow off their lawn for $10.25 per week for 25 weeks. How much money did Timothy earn in total?

5. Clara buys a cake($25), 25 cupcakes($.75/ea) and 42 cookies($.50/ea) for her birthday party. How much did Clara spend for all these desserts?

Flower Nursery: Reading a Pictograph

These two pictographs are comparing two types of flowers imported from Europe. Answer the questions below using information from the pictographs.
Note: each tulip in the pictograph stands for 1,000 tulips. Each daisy in the pictograph stands for 1,200 daisies.

Country	Number of Tulips Imported
Holland	
France	
Denmark	
Italy	

Country	Number of Daisies Imported
Holland	
France	
Denmark	
Italy	

= 1,000 = 1,200

Questions:

1. How many tulips did Holland and France import?

Answer: _____

2. How many daisies did Holland and Italy import?

Answer: _____

3. What country imported the same amount of tulips and daisies?

Answer: _____

4. Write the countries that imported the most flowers to the least flowers, in order.

Answer: _____

5. If Denmark wants to import 3,000 more daisies, how many would you draw in the table above?

Answer: _____

Bird Probability

Answer the probability questions regarding the birds hanging out.

1. Based on the number of birds, which bird is most likely to fly away first?

_____

2. Which bird is the least likely to fly away?

_____

3. What is the probability of a yellow bird flying away?

_____

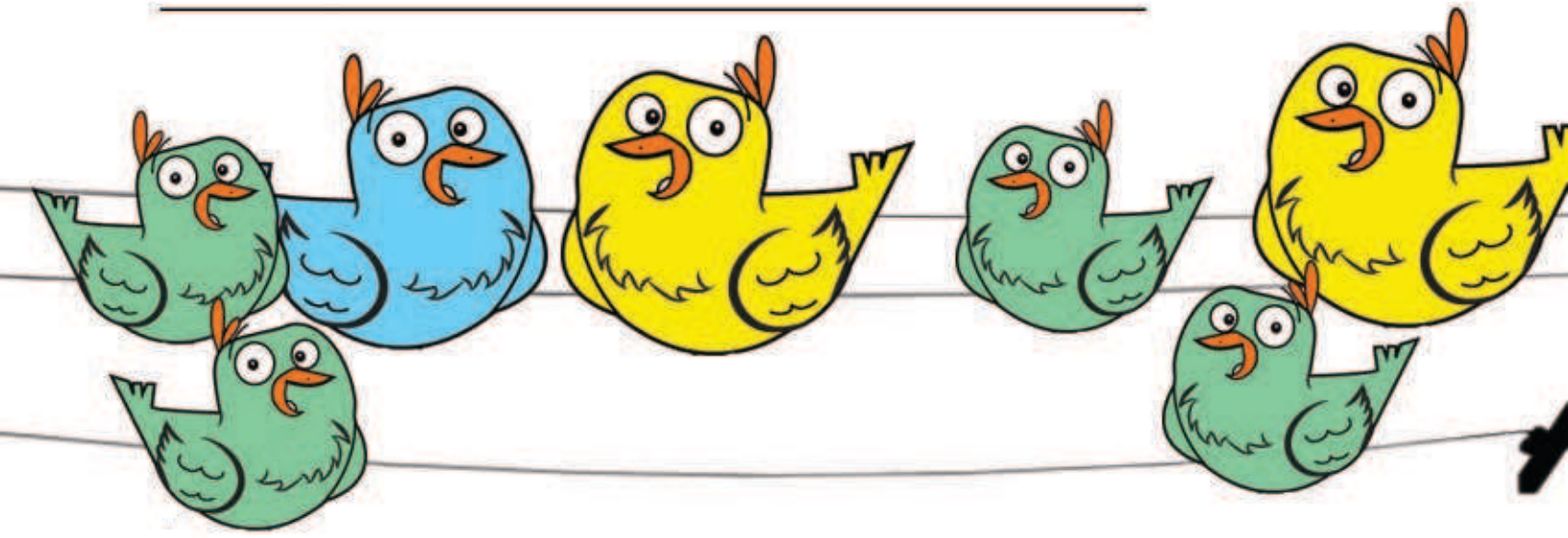
4. What are the chances that a green bird will fly away?

_____

5. Would it be more likely for a green or yellow bird to fly away first? Explain your answer.

_____

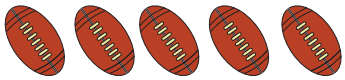
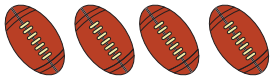
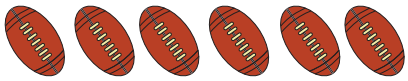
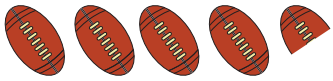
_____

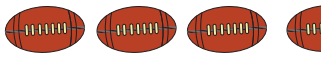
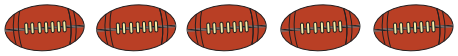
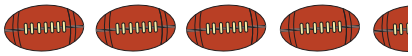
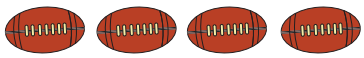


Sport Fans! Reading a Pictograph

These two pictographs are comparing numbers of balls kicked and thrown on the field. Look at the information and answer the questions below.

Note: each  in the pictograph stands for 600 of them and each  in the pictograph stands for 800 of them.

Match	Number of Balls Kicked
Match A	
Match B	
Match C	
Match D	

Match	Number of Balls Thrown
Match A	
Match B	
Match C	
Match D	

 = 600  = 800

Questions:

1. What do you think this symbol  represents?

Answer: _____

2. What do you think this symbol  represents?

Answer: _____

3. What match had the same amount of balls kicked and thrown?

Answer: _____

4. In total did more balls get kicked or thrown in all the matches?
Answer: _____

5. Write in order the matches which have the most to the least balls kicked and thrown.

Answer: _____

Probability Quiz

Answer the questions below regarding each probability question.

1. In the word "BANANA", what is the letter that would most likely be picked at random?

_____

2. A box contains 9 red marbles, 12 blue marbles, 13 green marbles and 6 white marbles. What is the probability of taking out a red marble?

_____

3. If you chose a number at random below, what is the probability of picking an even number?

3, 12, 15, 9, 5, 14, 21, 17

_____

4. What is the probability of picking an odd number from the list of numbers below?

46, 44, 8, 22, 14, 12, 3, 7

_____

5. What is the probability of choosing the letter "O" in SCHOOL?

_____

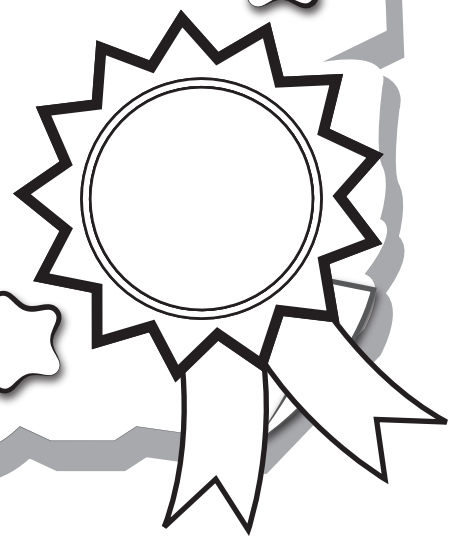
6. There are 11 oranges, 6 apples, 9 bananas, and 13 peaches on the table. What is the probability of picking an orange?

_____

Great job!

_____

is an ThuVienTiengAnh.Com math superstar



Answer Sheets

Good Odds: Statistics and Probability

Bag O' Stuff: Cards
Merchandise Multiplication
Steer & Simplify #1
Probability
Division Word Problems
Go Abroad: Practice Reading a Bar Graph
Classroom Math: Multiplication Word Problems
Solve the Word Problems #1
Statistics: Instrument Interviews
Prize Wheel Probability
Solve the Word Problems #2
Family Vacation Multiplication
Athletic Arithmetic: Multiplication Word Problems
Heads or Tails?
Steer & Simplify #3
Multiplication Word Problems
Flower Nursery: Reading a Pictograph
Bird Probability
Sport Fans: Reading a Pictograph
Probability Quiz

Answer Sheet

PROBABILITY

Bag O' Stuff: Cards

There is a bag of items.
Answer the questions using the pictures of what's in the bag.

1. What is the probability of pulling a **card of hearts** out of the bag?

   5/20 = 1/4

2. What is the probability of pulling a **black card** out of the bag?

   10/20 = 1/2

3. What is the probability of pulling an **Ace** out of the bag?

   4/20 = 1/5

4. What is the probability of pulling a **red four** out of the bag?

   2/20 = 1/10

5. What is the probability of pulling either a **card of spades or clubs** out of the bag?

   10/20 = 1/2

6. What is the probability of pulling a **three of diamonds** out of the bag?

   1/20

Answer Sheet

Merchandise Multiplication — 4th Grade

Answer Sheet

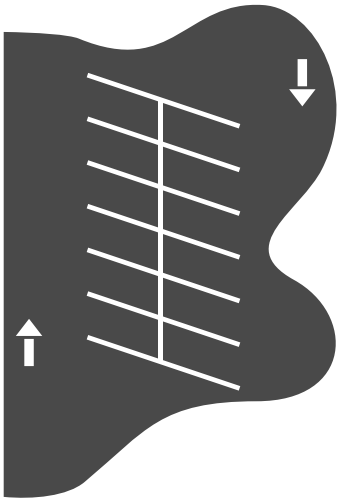
Use multiplication to solve the following problems. Show your work.

The Nguyen family gets movies from MovieMail home video delivery service. They get 3 movies at the beginning of the week and return them at the end of each week. If they continue this pattern, how many movies will they see in one year? (1 year = 52 weeks)

$3 \times 52 = 156$

156 movies

Look at the diagram of a portion of the local grocery store's parking lot. If there are 15 rows of parking spaces in the lot like this one, how many cars can the parking lot fit in total?



$$\begin{array}{r} 12 \\ \times\ 15 \\ \hline 60 \\ +\ 120 \\ \hline 180 \end{array}$$

180 cars

Mr. Hayes is having friends over to watch basketball and needs to buy snacks. He buys 5 boxes of crackers. In each box there are 3 sleeves of 24 crackers. How many crackers did he buy all together? This is a two step problem. Try multiplying the numbers in different orders. Do you get the same answer? * You can find this answer by multiplying the numbers in any order.

$24 \times 3 = 72$

$72 \times 5 = 360$

360 crackers

Mr. Chang is comparing television screen sizes. Screen #1 is 18 by 23 inches and screen #2 is 19 by 22 inches. Which television has the larger screen?

$$\begin{array}{r} 18 \\ \times\ 23 \\ \hline 54 \\ +\ 360 \\ \hline 414 \end{array}$$

$$\begin{array}{r} 19 \\ \times\ 22 \\ \hline 38 \\ +\ 380 \\ \hline 418 \end{array}$$

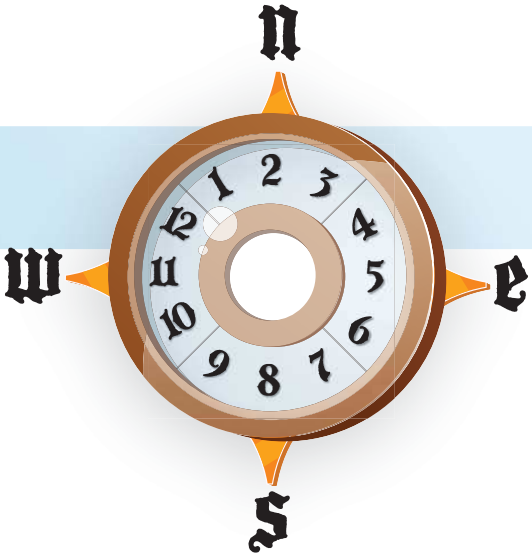
Screen #2

Answer Sheet

Answer Sheet

MATH
FRACTIONS

Steer & Simplify #1



Navigate the treacherous seas by simplifying the following fractions. Use the compass on the right to guide you. Start at the red arrow and go north, south, east or west to the next square with each fraction your reduce. Draw a line to track your journey. Show your work.

Compass Instructions: *Once you reduce a fraction completely, look at its denominator and then find that number on the compass and move in the direction it points.*

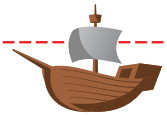
$\frac{9}{54} = \frac{1}{6}$ $\frac{6}{15} = \frac{2}{5}$ $\frac{6}{8} = \frac{3}{4}$ $\frac{27}{45} = \frac{3}{5}$

$\frac{16}{24} = \frac{2}{3}$ $\frac{24}{27} = \frac{8}{9}$ $\frac{35}{84} = \frac{5}{12}$ $\frac{18}{60} = \frac{3}{10}$

$\frac{15}{30} = \frac{1}{2}$ $\frac{5}{40} = \frac{1}{8}$ $\frac{32}{40} = \frac{4}{5}$ $\frac{4}{6} = \frac{2}{3}$

$\frac{9}{18} = \frac{1}{2}$ $\frac{28}{40} = \frac{7}{10}$ $\frac{9}{27} = \frac{1}{3}$ $\frac{40}{55} = \frac{8}{11}$

11 is between 9 and 12, so go west



Answer Sheet

Probability

Answer the probability questions regarding the worms the chicken will eat.

1. What is the probability the chicken will catch a blue worm?

   2 out of 11

2. What is the probability the chicken will catch a green worm?

   5 out of 11

3. Which worm is the least likely to get caught by the chicken?

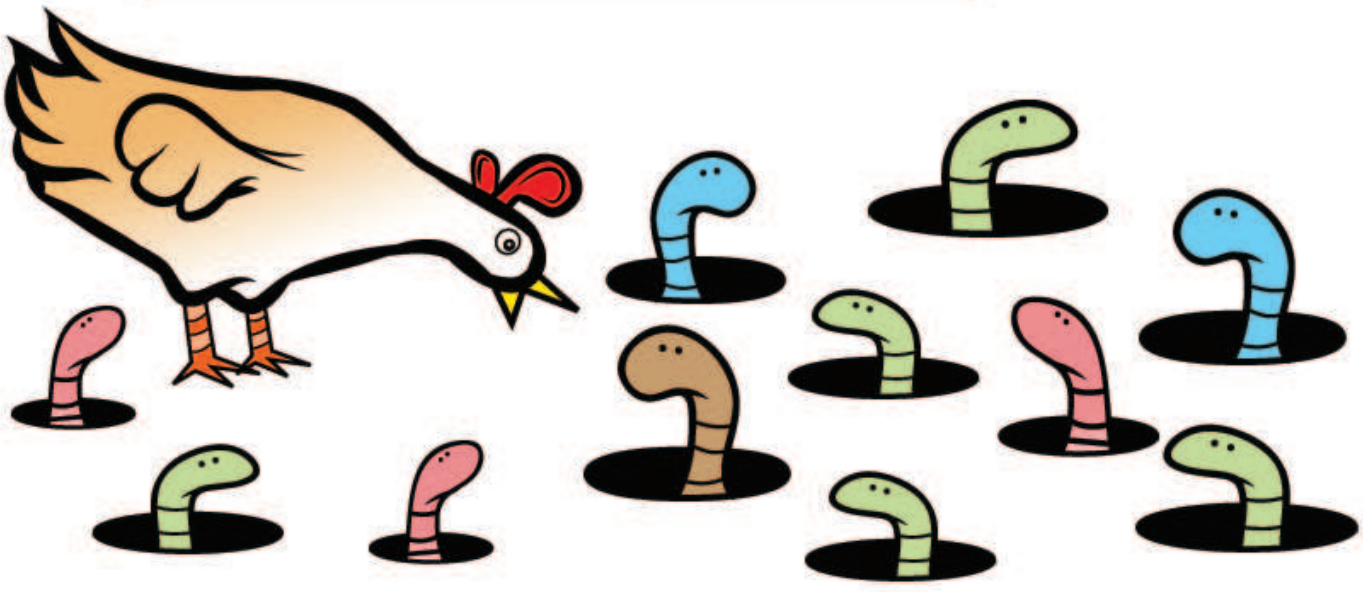
   The brown worm, because there's only one

4. What would the probability of the chicken getting a blue worm be if we added 3 more blue worms?

   5 out of 14

5. What would the probability of the chicken getting a brown worm be if we added 2 more brown worms?

   3 out of 13



Answer Sheet

DIVISION WORD PROBLEMS

1. Billy receives $15 every month for allowance. He puts $7 of his allowance into a piggy bank until his piggy bank has $119. How many months has he been saving part of his allowance?

119 (amount saved) ÷ 7 (amount left from his allowance) = 17 months

It took Billy 17 months to save up $119 in his piggy pank.

2. Miss Amy collected $6 each from her students for their upcoming field trip. If all of her students went on the field trip she would collect $192. How many students are in Miss Amy's class?

192 (total collected money) ÷ 6 (collected per student) = 32 students

There are 32 students in Miss Amy's class.

3. Mr. Chong is also planning for his class to go on the same trip. He collects $6 from each of his students too, but one of his students could only pay $3 making his total $219. How many students are in his class?

219 (total collected money) + 3 (the missing due from one student) = 222
222 ÷ 6 (collected per student) = 37 students

There are 37 students in Mr. Chong's class.

4. Kari gets $20 every week for lunch money. She sets aside $2 every school day. How many weeks did it take for her to save up $65?

$2 (allowance saved) x 5 (# school lunch days) = $10 (allowance saved in a week)
$65 (total saved) ÷ $10 (allowance saved in a week) = 6.5 weeks round up to 7

It took her 7 weeks to save 65 dollars.

5. Susan is selling raffle tickets for $4. She collects a total of $284. How many tickets did she sell?

$284 (collected total) ÷ $4 (price per raffle ticket) = 71 (tickets sold)

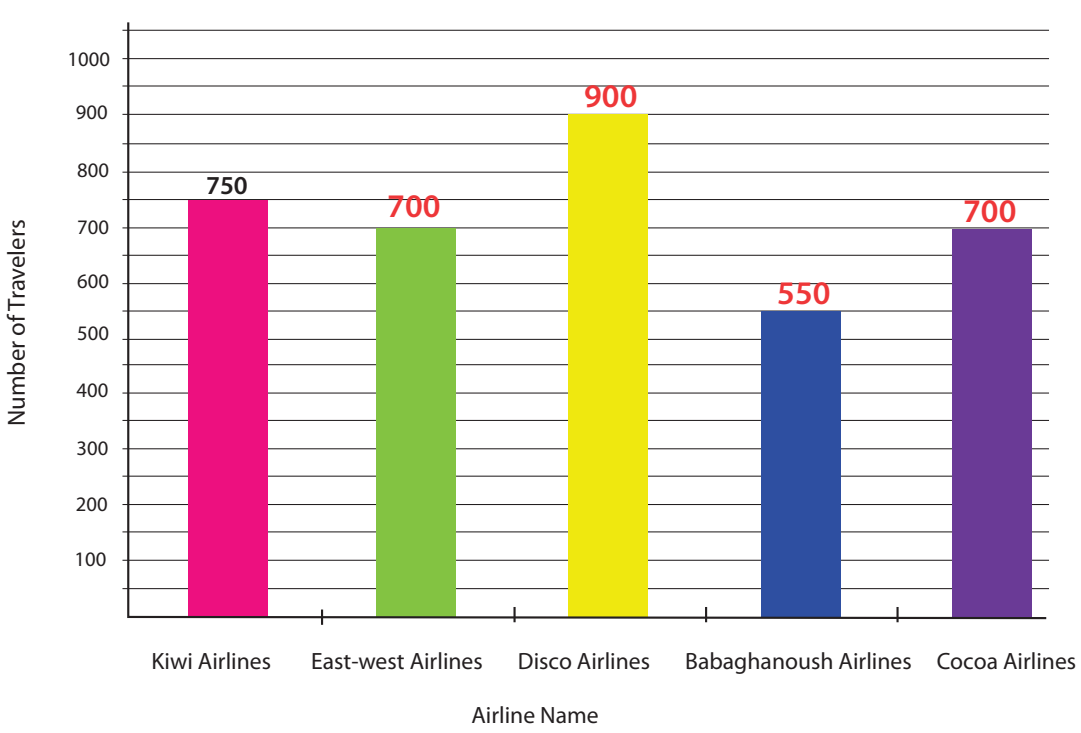
Susan sold 71 tickets.

Answer Sheet

Answer Sheet
Go Abroad!: Practice Reading a Bar Graph

4th Grade

Read the records of travelers using airline services. Then answer the questions below. Show your work.



1. What unit of measurement is used to express the airlines' popularity?

Number of travelers

2. Write a number at the end of each bar to indicate the number of travelers in each airline.

3. Are there any two airlines that have the same number of travelers? What are they?

East - west Airlines and Cocoa Airlines

4. If East-west Airlines had 250 more travelers, what rank would the Kiwi Airlines be?

Number 3

5. How many more travelers does the Babaghanoush airline need to be the top airline among these five?

351 more travelers

Answer Sheet

Classroom Math: Multiplication Word Problems

Answer Sheet

4th Grade

Math isn't just for math class. It is used to solve problems in every subject. Help Mr. Hammond's class figure out their problems using math. Show your work

Henry wants to see how many different colored crayons are in the crayon box. If there here are 4 rows of 19 crayons, how many different colors are there?

$$\begin{array}{r} 19 \\ \times\ 4 \\ \hline 76 \end{array}$$

76 crayons

Mikey is typing in the computer lab and typing at 23 words per minute. If he types for 11 minutes, how many words does he type?

$$\begin{array}{r} 23 \\ \times\ 11 \\ \hline 23 \\ +\ 230 \\ \hline 253 \end{array}$$

253 words

All of the students have a vocabulary assignment every week with 13 new words. If the school year is 40 weeks long, how many new words will they learn?

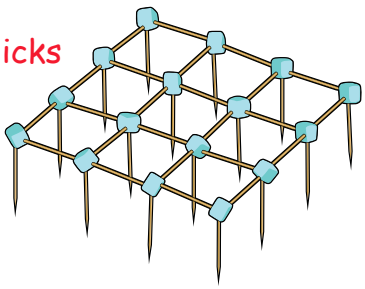
$$\begin{array}{r} 40 \\ \times\ 13 \\ \hline 120 \\ +\ 400 \\ \hline 520 \end{array}$$

520 words

Jeremy is building a toothpick skyscraper. Look at the picture below of the first floor. How many tooth picks will it take to build 12 stories? How many marshmallows will it take to build 12 stories?

$$\begin{array}{r} 40 \\ \times\ 12 \\ \hline 80 \\ +\ 400 \\ \hline 480 \end{array}$$

480 toothpicks



$$\begin{array}{r} 16 \\ \times\ 12 \\ \hline 32 \\ +\ 160 \\ \hline 192 \end{array}$$

192 marshmallows

It's the day before Valentine's Day and Shelley needs to get Valentine cards for all of her classmates. The desks are arranged in a rectangle 7 rows wide and 5 rows long. If there are 3 desks that are empty, how many students are in the class?

$$\begin{array}{r} 7 \\ \times\ 5 \\ \hline 35 \end{array}$$

35 - 3 = 32

32 students

Answer Sheet

Solve the word problems. Show your work and circle your answers.

1. Erin and her brother Eli were planting a garden. They planted 312 zinnia seeds, 267 daisy seeds, and 137 geranium seeds. A week later, they found that 256 zinnias, 182 daisies and 64 geraniums had sprouted. How many of the seeds they planted did not sprout?

```
 312        256        716
 267        182      + 502
+ 137     +  64      -----
-----     -----       214
 716        502
```

2. Erin opened 3 packets of flower seeds. Each packet contained 100 seeds. On her way out to the garden to plant them, Erin tripped and spilled 25 rose seeds, 32 mum seeds and 56 jasmine seeds. How many seeds did Erin have left altogether?

```
 100        25         300
x  3       32       - 113
-----   +  56       -----
 300       113        187
```

3. On Saturday, Eli planted 234 carrot seeds, 73 celery seeds and 121 potato seeds. On Sunday, he planted 168 rhubarb seeds and 265 leek seeds. On which day did Eli plant more seeds? How many more?

```
 234        168        433
  73      + 265      - 428
+ 121      -----      -----
-----       433          5
 428
```

On Sunday, Eli planted 5 more seeds

4. On Sunday morning, Erin had an hour and fifteen minutes before she had to leave the house to meet her friend Elena. Erin spent 32 minutes watering the garden and 26 minutes weeding. How many minutes did Erin have left before she had to leave to meet Elena?

1 hour and 15 minutes
= 75 minutes

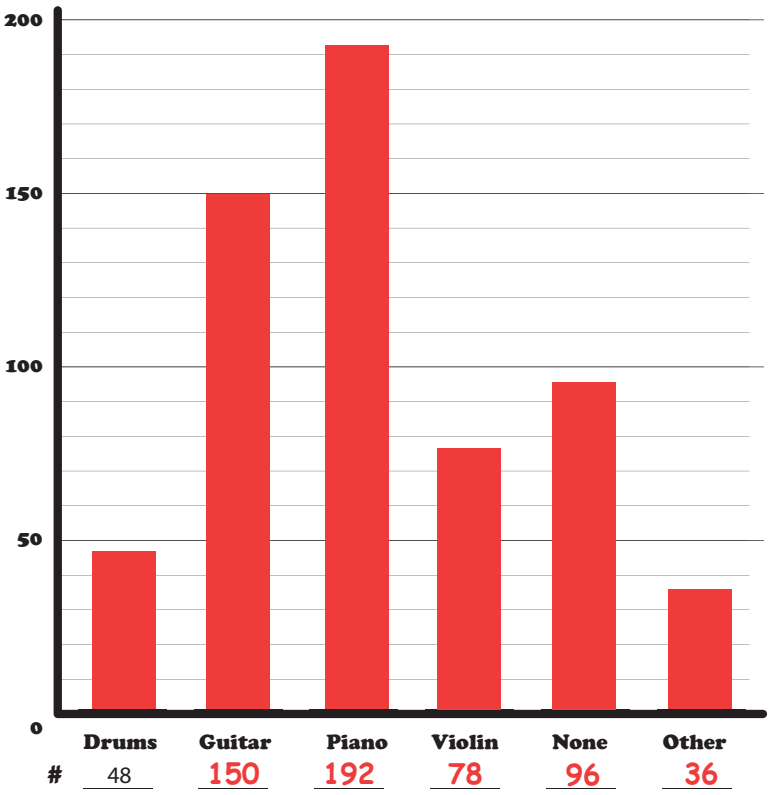
```
 32         75
+ 26       - 58
-----      -----
 58         17
```

Answer Sheet

Instrument Interviews

4TH GRADE
STATISTICS
Answer Sheet

Isabela interviewed 600 students at her elementary school and asked them what musical instrument they play. The results of her interviews are displayed on the pie graph below. Convert the percentages to whole numbers and fill out the bar graph.



	Drums	Guitar	Piano	Violin	None	Other
#	48	150	192	78	96	36

Convert the data:

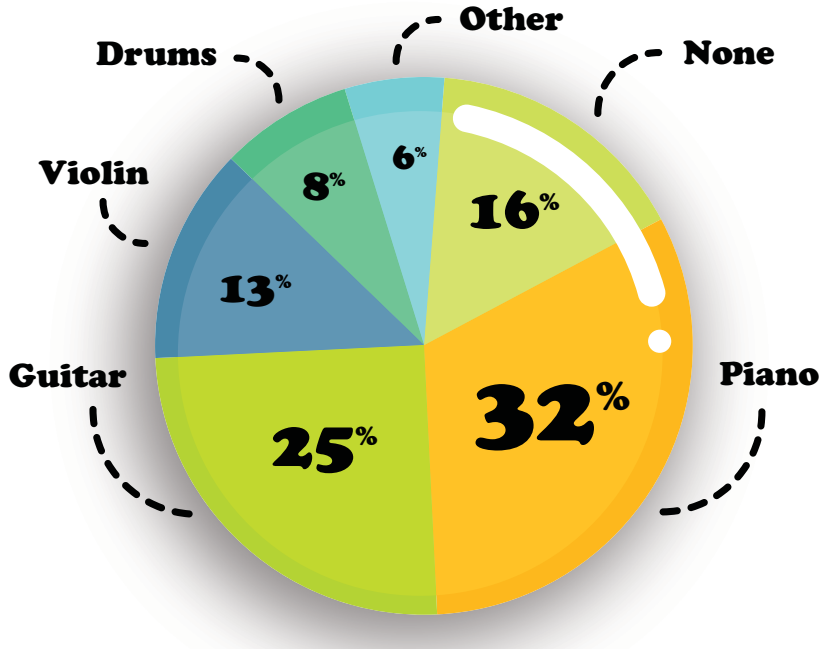
1. Convert each percentage to a decimal value by moving the decimal 2 places to the left.
Example: Drums = 8% → .08

2. Multiply the number of students interviewed by the decimal value of each percentage.

Example:
Drums =

600 → Factor 1: 0 decimal places
x .08 → Factor 2: 2 decimal places
48.00 → 48 drummers
2 decimal moves

Don't forget to move the product's decimal point two places to the left.



Violin =
600
x .13
1800
+ 6000
78.00

Guitar =
600
x .25
3000
+ 12000
150.00

Piano =
600
x .32
1200
+ 18000
192.00

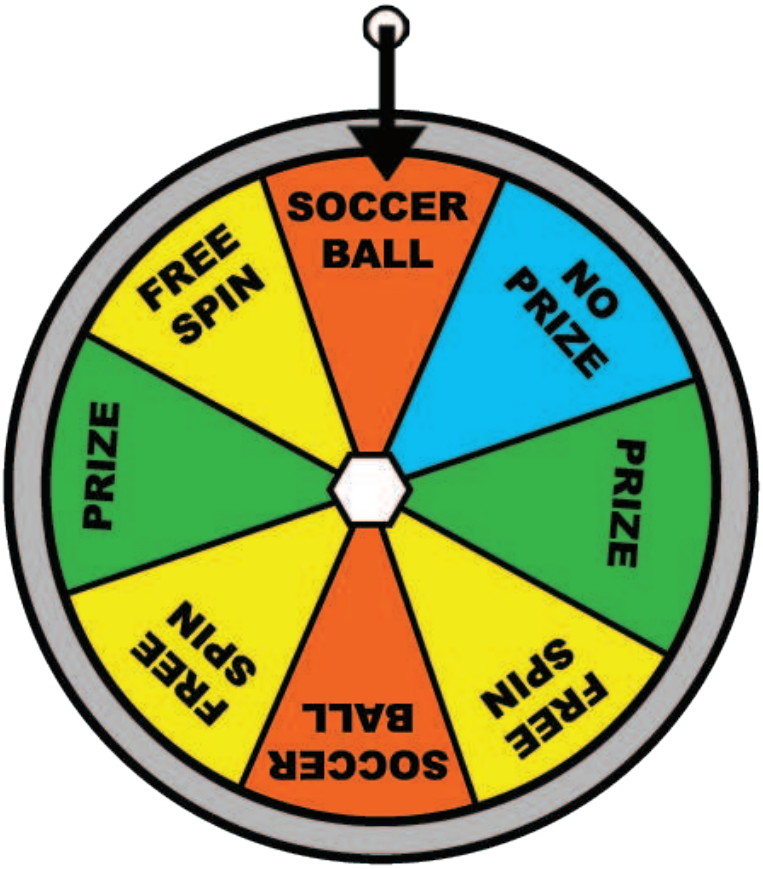
None =
600
x .16
3600
+ 6000
96.00

Other =
600
x .06
36.00

Answer Sheet

Prize Wheel Probability

Answer the probability questions related to the prize wheel.



1. If you spin the wheel, what is the probability that the arrow will point to "soccer ball"?

   2 out of 8

2. What is the probability that the arrow will point to "no prize"?

   1 out of 8

3. What is the probability that the arrow will point to "free spin"?

   3 out of 8

4. What is the probability that the arrow will point to "prize"?

   2 out of 8

Answer Sheet

Solve the word problems. Show your work and circle your answers.

1. Joey and his family are taking a road trip. On Monday, they travel 68 miles. On Tuesday, they travel 25. On Wednesday, they travel 33 miles. What is the average number of miles they drove per day?

$$\begin{array}{r} 68 \\ 25 \\ +\ 33 \\ \hline 126 \end{array} \qquad 3 \overline{)\,126} = 42$$

2. Joey has three brothers: Jonathan, Jacob, and Jack. Jacob is older than Jonathan but younger than Joey. Jack is younger than Jonathan. List the four boys in order from oldest to youngest.

Joey
Jacob
Jonathan
Jack

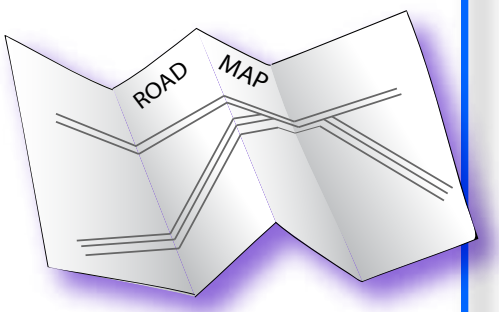
3. Joey wants to figure out how many minutes his family has spent on the road. On Monday, they traveled for 3 hours. They drove for 1 1/2 hours on Tuesday and another 1 1/2 hours on Wednesday. How many minutes have they traveled in all?

3 hours + 1 1/2 hours + 1 1/2 hours
= 6 hours

60 minutes
x 6 hours
360 minutes

4. Joey and his family plan to visit the Grand Canyon, Yellowstone National Park, and the Washington Monument. They will travel 1,323 miles to get to the Grand Canyon. From there, they'll drive 846 miles to Yellowstone. Finally, they will travel 2,166 miles to get to the Washington Monument. How many miles will they travel altogether?

$$\begin{array}{r} 1{,}323 \\ 846 \\ +\ 2{,}166 \\ \hline 4{,}335 \end{array}$$



Answer Sheet

Family Vacation Multiplication

The Smiths are going on a family vacation. Use multiplication, addition, and subtraction to solve the following problems. Perform other operations as needed to help find the answers. Show your work.

Driving to the airport, the Smiths needed to fill up on gasoline. Gasoline costs 3 dollars for one gallon. If their tank holds 16 gallons, and they already have 3 gallons filled, how much money will it cost to fill the car's tank completely?

(16 gallons - 3 gallons) = 13 gallons
13 x $3 per gallon = $39

It cost $39 to fill the tank completely.

The Smiths want to visit a museum and must pay to park. They are going to be gone for 4 hours. The price of parking is as follows:

1 Quarter = 15 minutes
1 Dime = 5 minutes
1 Nickel = 2 minutes

The Smiths have 8 quarters, 12 dimes and 14 nickels. Do they have enough to park for 4 hours? (Remember: 60 minutes = 1 hour)

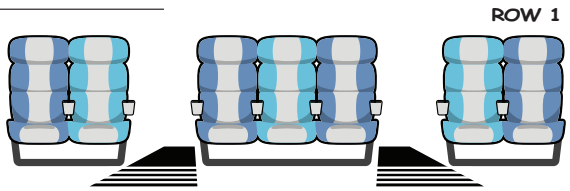
15 min. x 8 quarters = 120 min.
5 min. x 12 dimes = 60 min.
2 min. x 14 nickels = 28 min.
120 + 60 + 128 = 3 hours & 28 min.

The Smiths do not have enough money to park for 4 hours.

The Smiths board the airplane to head back home. The flight attendant wants to count how many passengers are on board. Every row consists of 2, 3, and 2 seats each (see picture below). If there are 51 horizontal rows, and 13 seats are empty, how many passengers are on board?

51 rows x 7 seats = 357 seats total
357 - 13 = 344

There are 344 passengers on board.



In total, the Smiths were flying in an airplane for 14 hours. If the airplane cruises at approximately 512 miles per hour, about how many miles did they travel all together?

14 hours x 512 miles = 7,168

They traveled 7,168 miles.

Answer Sheet

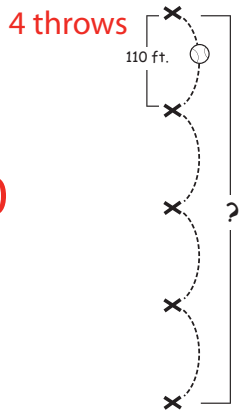
Athletic Arithmetic: Multiplication word problems

Answer Sheet

4th Grade

Practice your multiplication skills by answering the following word problems. Show your work.

The Springfield Giants are practicing their relay throws. If there are 5 people in the relay and 110 feet between them, how far does the ball travel when it reaches the last player? Think about the number of throws it takes to make it to the end of the relay.



110 x 4 = 440

440 feet

A football field is 100 yards long and 50 yards wide. What is the entire area of the field? If the end zone extends 10 yards beyond each goal line. What is the entire area including both end zones? Remember, Area = Length x Width.

100 x 50 = 5000 square yards

The area of the field is 5,000 square yards.

100 + 10 +10 = 120

120 x 50 = 6000 square yards

The area of the field including both end zones is 6,000 square yards.

The Ladybugs basketball just finished another close game. They scored 12 3-point baskets, 17 2-point baskets, and 8 1-point baskets. If the other team scored 75 points, did the Ladybugs score enough to win?

12 x 3 = 36

17 x 2 = 34

8 x 1 = 8

36 + 34 + 8 = **78**

Yes

Casey is practicing her bowling technique. She rolled 14 attempts. In 4 of them she knocked down 8 pins, in 3 she knocked down 9, and she knocked down all 10 in the rest. How many pins did she knock down in total?

4 x 8 = 32

3 x 9 = 27

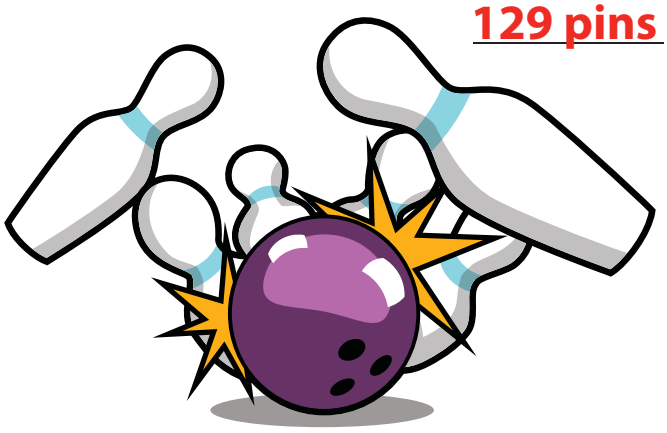
4 + 3 = 7

14 - 7 = 7

7 x 10 = 70

32 + 27+ 70 = **129**

129 pins

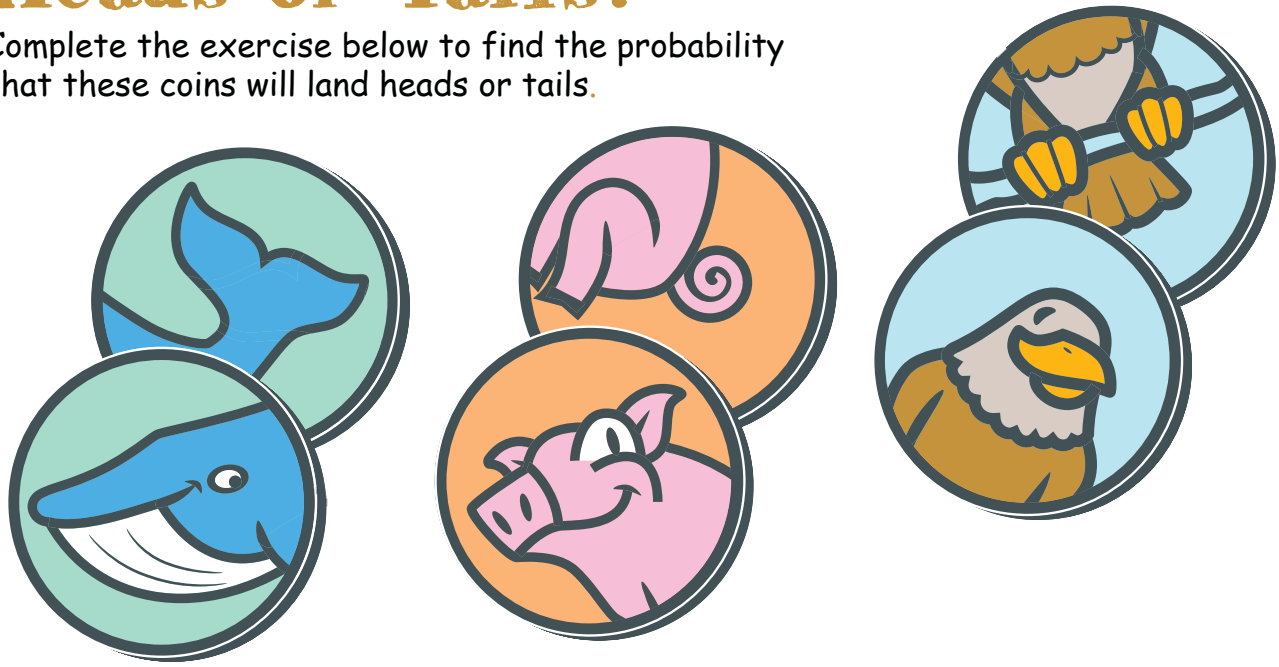


Answer Sheet

Heads or Tails?

ANSWERS

Complete the exercise below to find the probability that these coins will land heads or tails.



Write out the different combinations of heads and tails if all three coins are tossed at once. Then answer the questions.

Remember: Probability is the likelihood an event will occur expressed as a fraction.

	Whale	Pig	Eagle
1	Heads	Heads	Heads
2	Tails	Heads	Heads
3	Tails	Tails	Heads
4	Tails	Tails	Tails
5	Heads	Tails	Tails
6	Heads	Heads	Tails
7	Heads	Tails	Heads
8	Tails	Heads	Tails

- What is the probability that two of the coins will land heads?

3/8

- What is the probability that at least one coins lands tails up?

7/8

- What is the probability that the whale coin lands heads up?

4/8

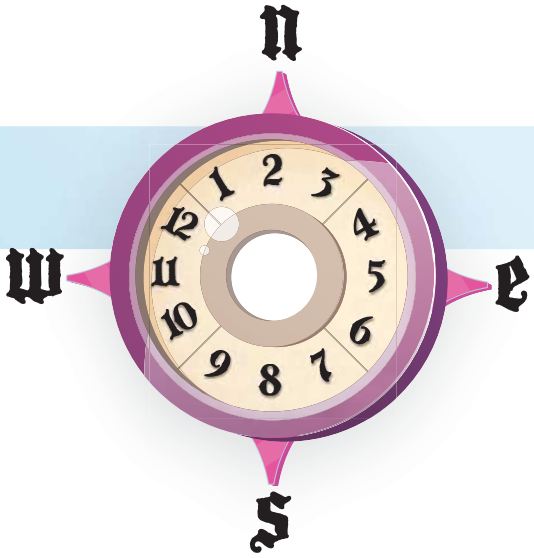
- What is the probability that the whale lands heads, the pig coin lands tails, and the eagle coin lands heads?

1/8

Answer Sheet

MATH
FRACTIONS

Steer & Simplify #3



Navigate the treacherous seas by simplifying the following fractions. Use the compass on the right to guide you. Start at the red arrow and go north, south, east or west to the next square with each fraction your reduce. Draw a line to track your journey. Show your work.

Compass Instructions: *Once you reduce a fraction completely, look at its denominator and then find that number on the compass and move in the direction it points.*

$\frac{15}{40} = \frac{3}{8}$ $\quad \frac{27}{90} = \frac{3}{10}$ $\quad \frac{5}{60} = \frac{1}{12}$ $\quad \frac{12}{42} \overset{\div 6}{=} \frac{2}{7}$

$\frac{12}{30} = \frac{2}{5}$ $\quad \frac{27}{63} = \frac{3}{7}$ $\quad \frac{8}{16} = \frac{1}{2}$ $\quad \frac{7}{63} = \frac{1}{9}$

$\frac{2}{16} = \frac{1}{8}$ $\quad \frac{30}{55} = \frac{6}{11}$ $\quad \frac{7}{14} = \frac{1}{2}$ $\quad \frac{15}{24} = \frac{5}{8}$

$\frac{11}{55} = \frac{1}{5}$ $\quad \frac{12}{54} = \frac{2}{9}$ $\quad \frac{8}{12} = \frac{2}{3}$ $\quad \frac{49}{70} = \frac{7}{10}$

Answer Sheet

MULTIPLICATION WORD PROBLEMS

1. Bennet saves $.75 from his lunch money everyday. If he saves for 12 weeks how much money will he have?

0.75(amount saved per week) x 12(#of weeks) = $9

If Bennet saves for 12 weeks he will have $9.

2. Mr. Hansen buys a cupcake for each student in his class for the class party. Each cupcake costs $1.25. However there is a discount where each batch of 10 cupcakes are only $1. He buys 34 cupcakes. How much did Mr. Hanson pay for all 34 cupcakes?

30 cupcakes will be in the discount price of $1
4 cupcakes will be at the standard price of $1.25
30 (discount cupcakes) x $1 (discount cost per cupcake) = $30
4 (regular cupcakes) x $1.25 (regular cost per cupcake) = $5
$30(total cost of discount cupcakes) + 5(total cost of regular cupcakes) = $35

Mr. Hanson paid $35 for all 34 cupcakes.

3. Emi buys 15 baskets of strawberries to share with her class. Each basket has 12 strawberries. How many strawberries does she have to share with the class?

15(#of strawberry baskets) x 12(#of strawberries per basket) = 180

Emi has 180 strawberries to share with the class.

Each basket costs $ 2.25. How much did Emi spend on strawberries?

15(#of strawberry baskets) x $2.25(cost per basket) = 33.75

Emi spent $33.75 on strawberries.

4. Timothy mows his neighbor's lawn for $6.50 per week. He continues to do this for 37 weeks until winter. In winter he shovels snow off their lawn for $10.25 per week for 25 weeks. How much money did Timothy earn in total?

$6.50(cost per week for mowing) x 37 (#of weeks of mowing)=$240.50
$10.25(cost perk week for shoveling) x 25 (#of weeks of shoveling)=$256.25
$240.50 (total cost of mowing) + 256.25 (total cost of shoveling) = $496.75

Timothy earned a total of $496.75.

5. Clara buys a cake($25), 25 cupcakes($.75/ea) and 42 cookies ($.50/ea) for her birthday party. How much did Clara spend for all these desserts? 25 (#of cupcakes) x $.75 (cost per cupcake) = $18.75
42 (#of cookies) x $.50 (cost of cookies) = $21
$25 (cost of 1cake) + $18.75 (cost of 25 cupcakes) + $21(cost of 42 cookies)=$64.75

Clara spent $64.75 for all these desserts.

Answer Sheet

Answer Sheet

Flower Nursery: Reading a Pictograph

These two pictographs are comparing two types of flowers imported from Europe.
Answer the questions below using information from the pictographs.
Note: each tulip in the pictograph stands for 1,000 tulips. Each daisy in the pictograph stands for 1,200 daisies.

Country	Number of Tulips Imported
Holland	7
France	7
Denmark	8
Italy	6

Country	Number of Daisies Imported
Holland	5
France	4
Denmark	3
Italy	5

= 1,000 = 1,200

Questions:

1. How many tulips did Holland and France import?

Answer: 7,000 + 7,000 = **14,000 tulips**

1,000 x 7 = 7,000 1,000 x 7 = 7,000

2. How many daisies did Holland and Italy import?

Answer: 6,000 + 6,000 = **12,000 daisies**

1,200 x 5 = 6,000 1,200 x 5 = 6,000

3. What country imported the same amount of tulips and daisies?

Answer: **Italy** (6,000 tulips and 6,000 daisies)

4. Write the countries that imported the most flowers to the least flowers, in order.

Answer: 1. Holland: 7,000 + 6,000 = 13,000 2. Italy: 6,000 + 6,000 = 12,000 3. France: 7,000 + 4,800 = 11,800 4. Denmark: 8,000 + 3,600 = 11,600

5. If Denmark wants to import 3,000 more daisies, how many would you draw in the table above?

Answer:

Answer Sheet

Bird Probability

Answer the probability questions regarding the birds hanging out.

1. Based on the number of birds, which bird is most likely to fly away first?

   The green bird

2. Which bird is the least likely to fly away?

   The blue bird

3. What is the probability of a yellow bird flying away?

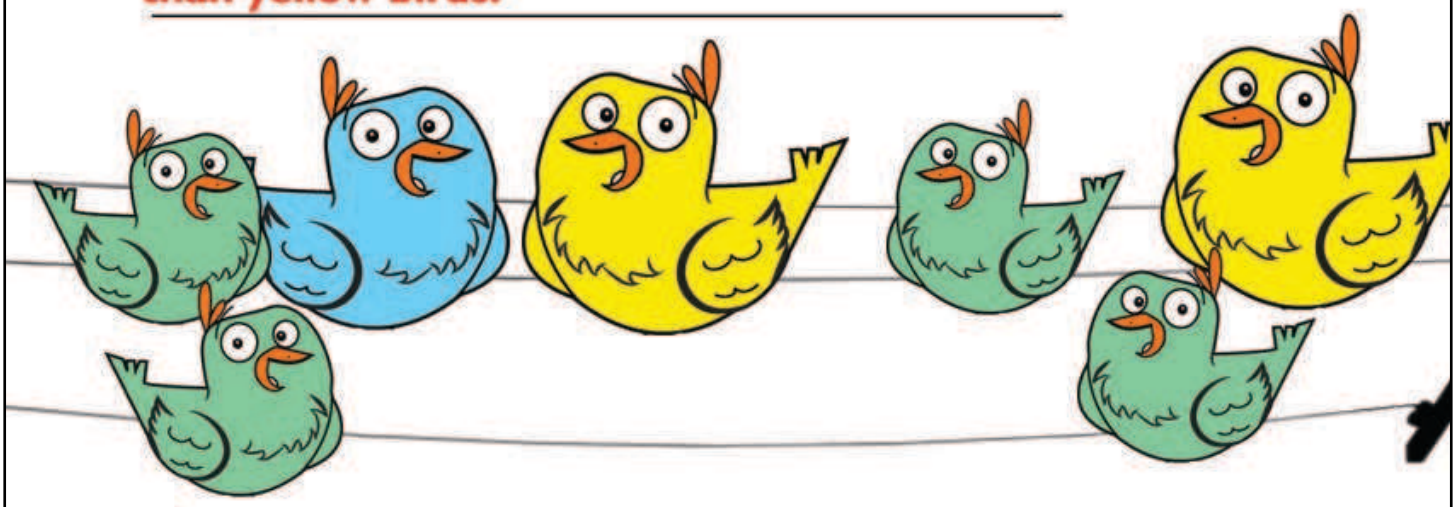
   2 out of 7

4. What are the chances that a green bird will fly away?

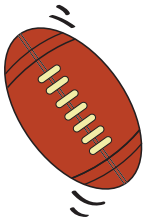
   4 out of 7

5. Would it be more likely for a green or yellow bird to fly away first? Explain your answer.

   A green bird. There are more green birds than yellow birds.



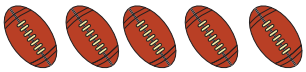
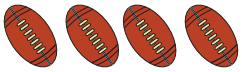
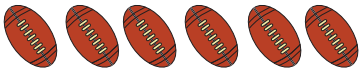
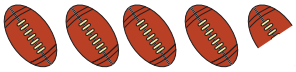
Answer Sheet

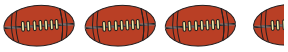
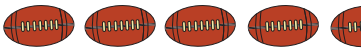


Answer Sheet
Sport Fans! Reading a Pictograph

These two pictographs are comparing numbers of balls kicked and thrown on the field. Look at the information and answer the questions below.

Note: each  in the pictograph stands for 600 of them and each  in the pictograph stands for 800 of them.

Match	Number of Balls Kicked
Match A	
Match B	
Match C	
Match D	

Match	Number of Balls Thrown
Match A	
Match B	
Match C	
Match D	

 = 600  = 800

Questions:

1. What do you think this symbol  represents?

Answer: 300 balls kicked

2. What do you think this symbol  represents?

Answer: 400 balls thrown

3. What match had the same amount of balls kicked and thrown?

Answer: Match C (with 3,600 balls kicked and thrown)

Kicked
3,000
2,400
3,600
+ 2,700
11,700

Thrown
2,800
4,000
3,600
+ 3,200
13,600

4. In total did more balls get kicked or thrown in all the matches?

Answer: Thrown (with 12,900 total)

5. Write in order the matches which have the most to the least balls kicked and thrown.

Answer:

Match C: 3,600 + 3,600 = 7,200
Match B: 2,400 + 4,000 = 6,400
Match D: 2,700 + 3,200 = 5,900
Match A: 3,000 + 2,800 = 5,800

Answer Sheet

Probability Quiz

Answer the questions below regarding each probability question.

1. In the word "BANANA", what is the letter that would most likely be picked at random?

   The letter "A"

2. A box contains 9 red marbles, 12 blue marbles, 13 green marbles and 6 white marbles. What is the probability of taking out a red marble?

   9 out of 40

3. If you chose a number at random below, what is the probability of picking an even number?

   3, 12, 15, 9, 5, 14, 21, 17

   2 out of 8

4. What is the probability of picking an odd number from the list of numbers below?

   46, 44, 8, 22, 14, 12, 3, 7

   2 out of 8

5. What is the probability of choosing the letter "O" in SCHOOL?

   2 out of 5

6. There are 11 oranges, 6 apples, 9 bananas, and 13 peaches on the table. What is the probability of picking an orange?

   11 out of 39