Good Odds
Statistics & Probability

600 students were asked what instrument they play.

How many students play Drums?

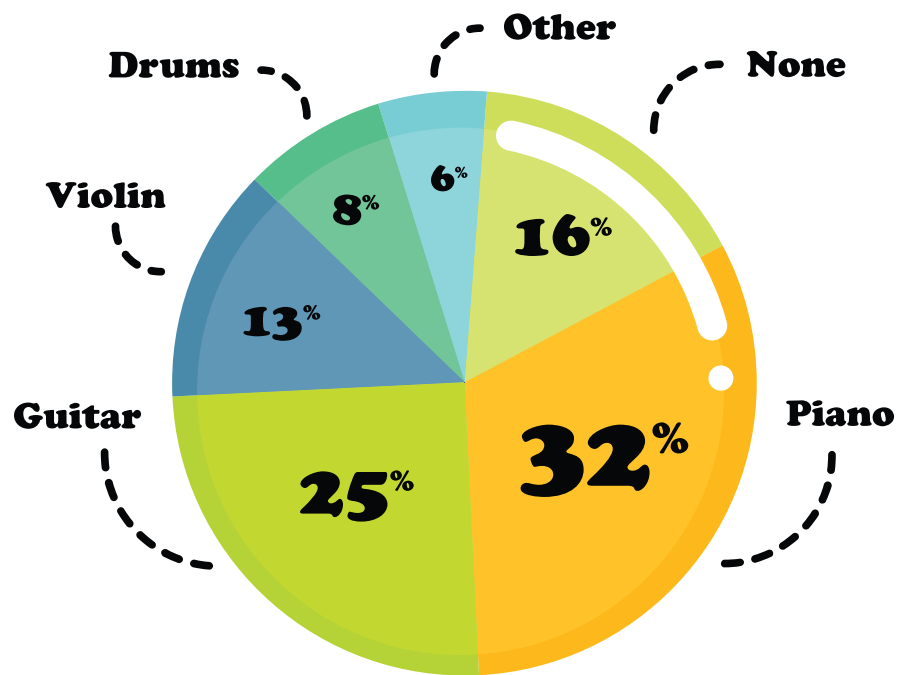Drums — Other — None

Violin

6%

8%

16%

13%

Guitar

25%

32%

Piano

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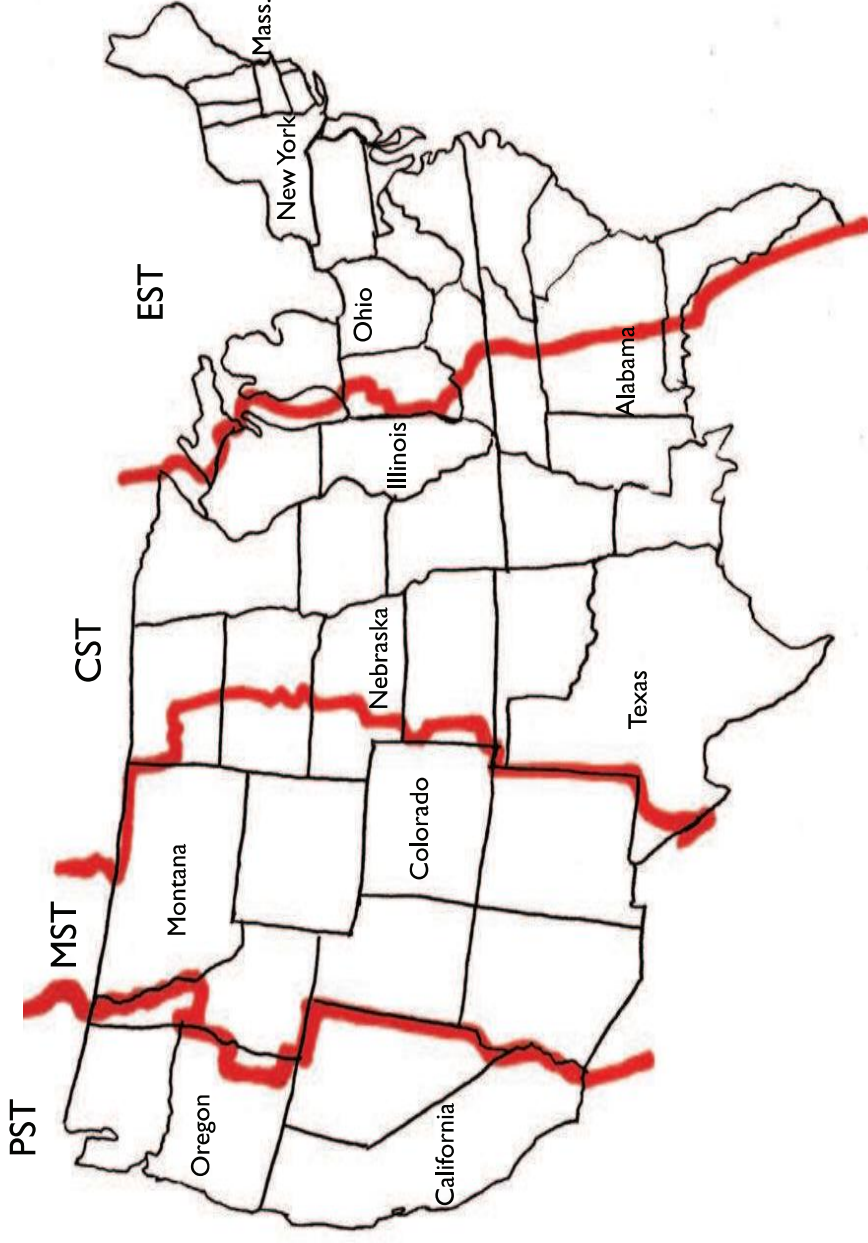
1. Daniel and Jody are flying to Boston for a wedding. If their plane leaves San Francisco at 7 a.m. PST and lands in Boston at 3:30 p.m. EST, what time will it be in San Francisco when they arrive in Boston?

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?

PST MST CST EST

Oregon
Montana
California
Colorado
Nebraska
Illinois
Ohio
New York
Mass.
Texas
Alabama

Merchandise Multiplication

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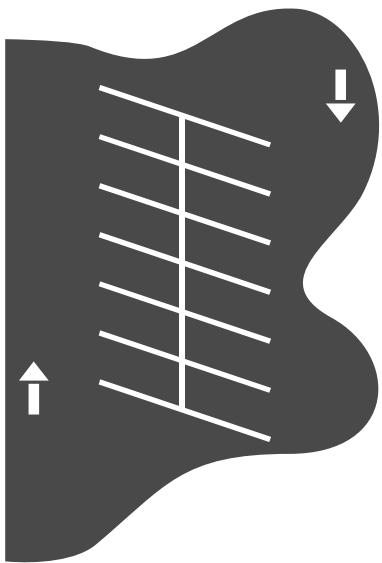
Mr. Hayes is having friends over to watch basketball and needs to buy snacks. He buys 5 boxes of crackers. In each box there are 3 sleeves of 24 crackers. How many crackers did he buy all together? This is a two step problem. Try multiplying the numbers in different orders. Do you get the same answer?

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?

MATH
FRACTIONS

Steer & Simplify #1
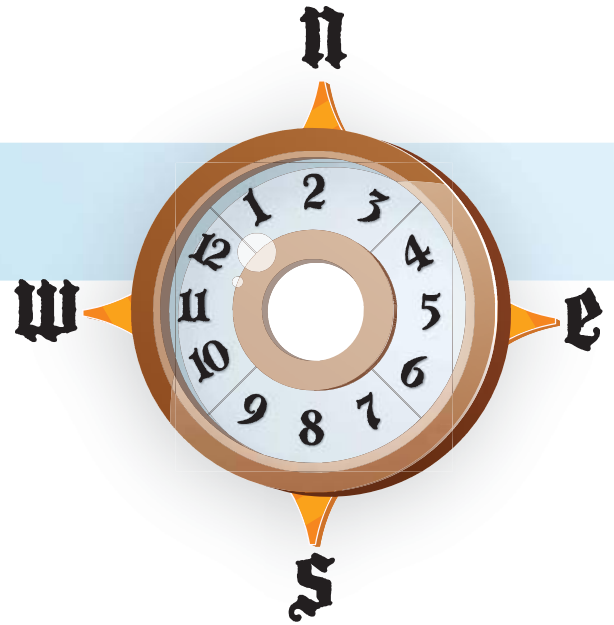
Navigate the treacherous seas by simplifying the following fractions. Use the compass on the right to guide you. Start at the red arrow and go north, south, east or west to the next square with each fraction your reduce. Draw a line to track your journey. Show your work.

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.*

$$\frac{9}{54} = \underline{\quad} \qquad \frac{6}{15} = \underline{\quad} \qquad \frac{6}{8} = \underline{\quad} \qquad \frac{27}{45} = \underline{\quad}$$

$$\frac{16}{24} = \underline{\quad} \qquad \frac{24}{27} = \underline{\quad} \qquad \frac{35}{84} = \underline{\quad} \qquad \frac{18}{60} = \underline{\quad}$$

$$\frac{15}{30} = \underline{\quad} \qquad \frac{5}{40} = \underline{\quad} \qquad \frac{32}{40} = \underline{\quad} \qquad \frac{4}{6} = \underline{\quad}$$

11 is between 9 and 12, so go west

$$\frac{9}{18} = \underline{\quad} \qquad \frac{28}{40} = \underline{\quad} \qquad \frac{9}{27} = \underline{\quad} \qquad \frac{40}{55} = \frac{8}{11}$$

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?

_____
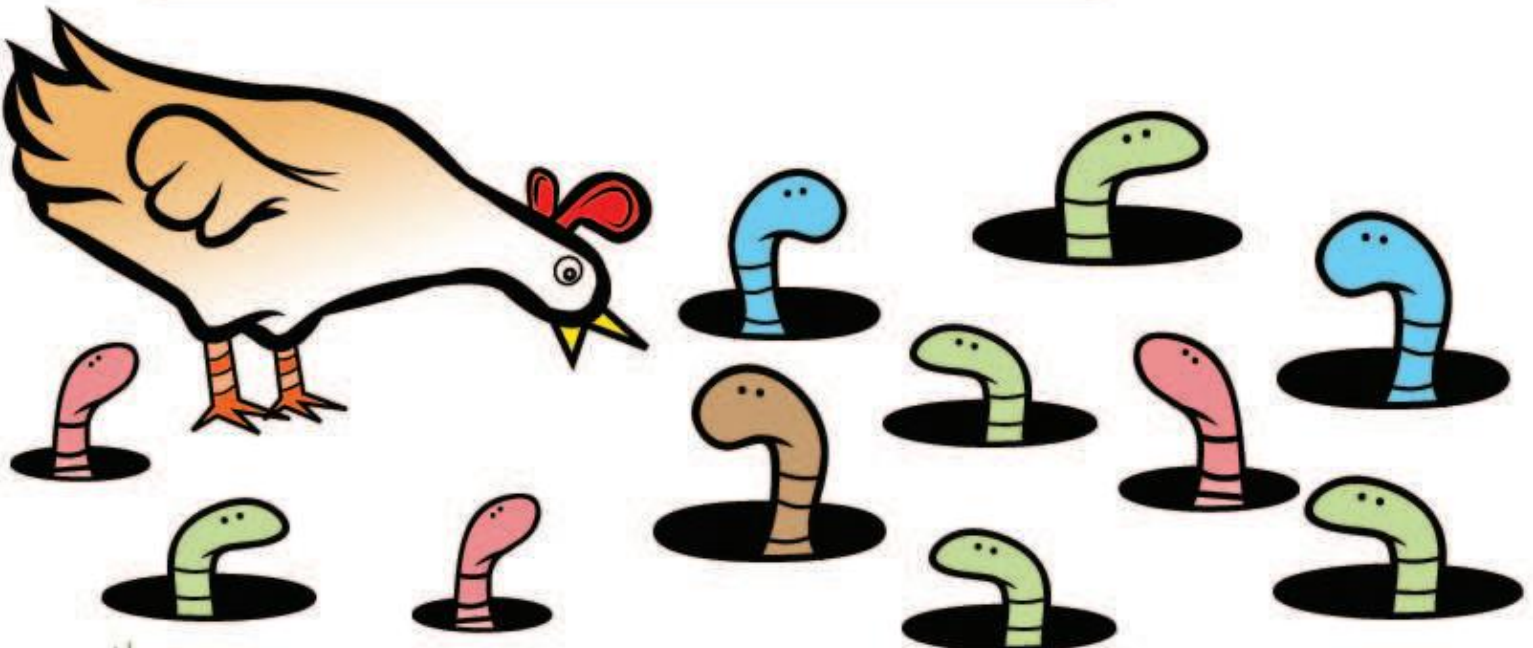
DIVISION WORD PROBLEMS

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?

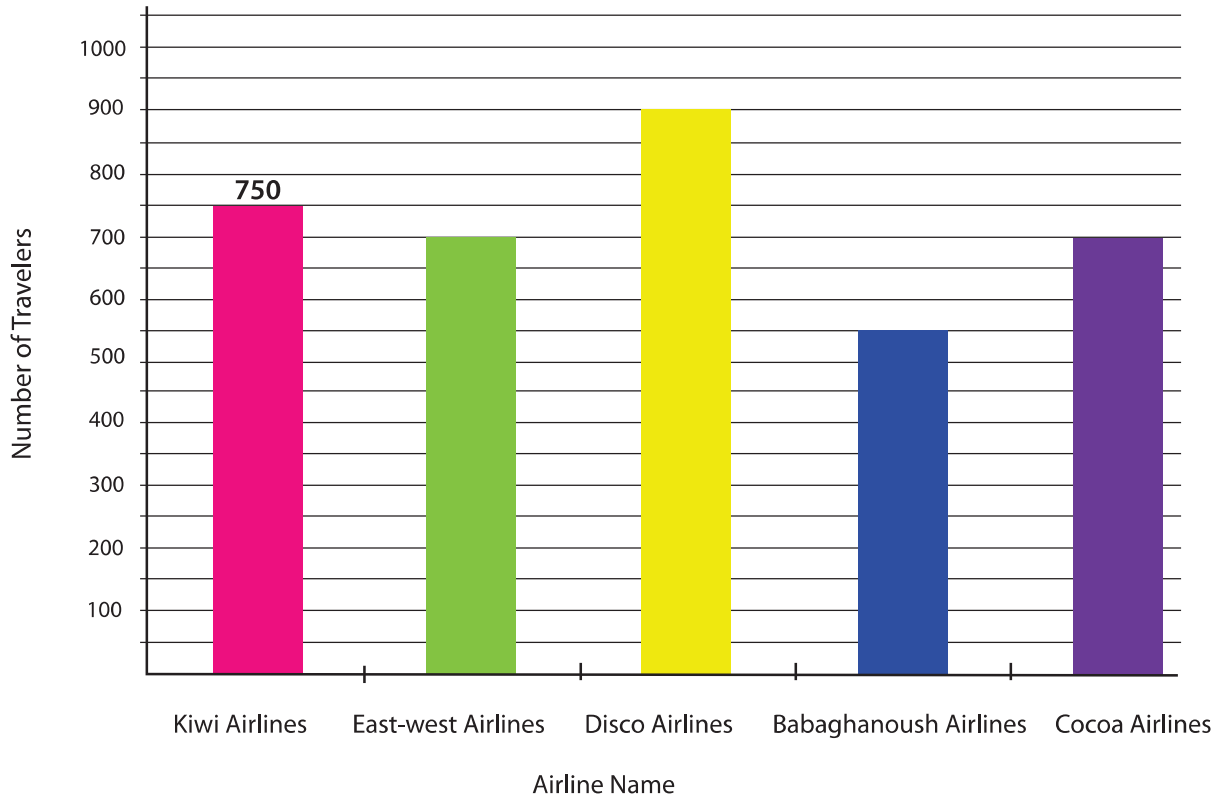5.   Susan is selling raffle tickets for $4. She collects a total of $284. How many tickets did she sell?
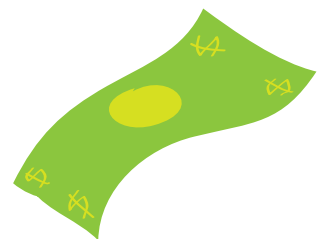
Go Abroad!: Practice Reading a Bar Graph

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

Number of travelers using airline services in January

Number of Travelers (y-axis): 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Kiwi Airlines: **750**
East-west Airlines: 700
Disco Airlines: 900
Babaghanoush Airlines: 550
Cocoa Airlines: 700

Airline Name

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?