

LESSON 2-7 Problem Solving
Multiplication Equations

Write and solve a multiplication equation to answer each question.

- In 1975, a person earning minimum wage made \$80 for a 40-hour work week. What was the minimum wage per hour in 1975?

- If an ostrich could maintain its maximum speed for 5 hours, it could run 225 miles. How fast can an ostrich run?

- About 2,000,000 people live in Paris, the capital of France. That is 80 times larger than the population of Paris, Texas. How many people live in Paris, Texas?

- The average person in China goes to the movies 12 times per year. That is 3 times more than the average American goes to the movies. How many times per year does the average American go to the movies?

Circle the letter of the correct answer.

- Recycling just 1 ton of paper saves 17 trees! If a city recycled enough paper to save 136 trees, how many tons of paper did it recycle?
A 7 tons
B 8 tons
C 9 tons
D 119 tons
- The distance between Atlanta, Georgia, and Denver, Colorado, is 1,398 miles. That is twice the distance between Atlanta and Detroit, Michigan. How many miles would you have to drive to get from Atlanta to Detroit?
A 2,796 miles
B 349.5 miles
C 699 miles
D 1,400 miles
- Seaweed found along the coast of California, called giant kelp, grows up to 18 inches per day. If a giant kelp plant has grown 162 inches at this rate, for how many days has it been growing?
F 180 days H 9 days
G 144 days J 8 days
- Jupiter has 2 times more moons than Neptune has, and 8 times more moons than Mars has. Jupiter has 16 moons. How many moons do Neptune and Mars each have?
F 8 moons, 2 moons
G 2 moons, 8 moons
H 128 moons, 32 moons
J 32 moons, 128 moons

LESSON 2-8 Problem Solving
Division Equations

Use the table to write and solve a division equation to answer each question.

- How many total people signed up to play soccer in Bakersville this year?

- How many people signed up to play lacrosse this year?

- What was the total number of people who signed up to play baseball this year?

- Which two sports in the league have the same number of people signed up to play this year? How many people are signed up to play each of those sports?

Bakersville Sports League

Sport	Number of Teams	Players on Each Team	Total per Sport
Baseball	7	20	140
Soccer	11	15	165
Football	8	24	192
Volleyball	12	9	108
Lacrosse	6	17	102
Basketball	10	10	100
Tennis	18	6	108

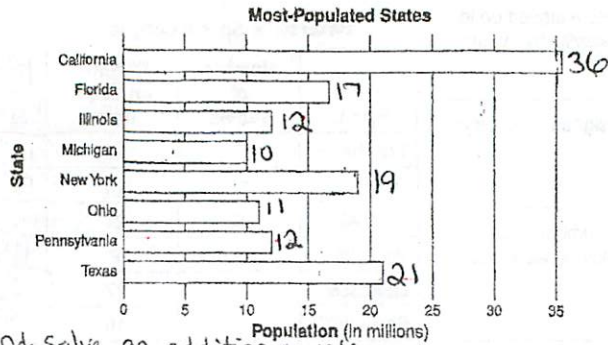
Circle the letter of the correct answer.

- Which sport has a higher total number of players, football or tennis? How many more players?
A football; 10 players
B tennis; 144 players
C football; 84 players
D tennis; 18 players

- Only one sport this year has the same number of players on each team as its number of teams. Which sport is that?
F basketball
G football
H soccer
J tennis

LESSON 2-5 Problem Solving
Addition Equations

Use the bar graph and addition equations to answer the questions.



Write and solve an addition equation.

- How many more people live in California than in New York?
 $19 + p = 36$
 $p = 17$
- How many more people live in Ohio than in Michigan?
 $10 + p = 11$
 $p = 1$
- How many more people live in Florida than in Illinois?
 $12 + p = 17$
 $p = 5$
- How many more people live in Texas than in Pennsylvania?
 $12 + p = 21$
 $p = 9$

Circle the letter of the correct answer.

- Which two states' populations are used in the equation $12 + x = 12$?
A Pennsylvania and Texas
B Ohio and Florida
C Michigan and Illinois
D Illinois and Pennsylvania
- In 2003, the total population of the United States was 292 million. How many of those people did not live in one of the states shown on the graph?
A 416 million
C 154 million
B 73 million
D 292 million
- What is the value of x in the equation in Exercise 5?
F 0 H 12
G 1 J 24
- The combined population of Ohio and one other state is the same as the population of Texas. What is that state?
F California
G Florida
H Michigan
J Pennsylvania

Handwritten calculations:

$$\begin{array}{r} 36 \\ 17 \\ 12 \\ 10 \\ 19 \\ 11 \\ 12 \\ 21 \\ \hline 292 \\ -138 \\ \hline 154 \end{array}$$

Handwritten equations:

$$\begin{array}{r} 0 + ? = T \\ -0 \quad -0 \\ \hline ? = \end{array}$$

LESSON 2-6 Problem Solving
Subtraction Equations

** variable must be first*

Write and solve subtraction equations to answer the questions.

- Dr. Felix Hoffman invented aspirin in 1899. That was 29 years before Alexander Fleming invented penicillin. When was penicillin invented?

- Kimberly was born on February 2. That is 10 days earlier than Kent's birthday. When is Kent's birthday?

- Kansas and North Dakota are the top wheat-producing states. In 2000, North Dakota produced 314 million bushels of wheat, which was 34 million bushels less than Kansas produced. How much wheat did Kansas farmers grow in 2000?

- Scientists assign every element an atomic number, which is the number of protons in the nucleus of that element. The atomic number of silver is 47, which is 32 less than the atomic number of gold. How many protons are in the nucleus of gold?

Circle the letter of the correct answer.

- The spine-tailed swift and the frigate bird are the two fastest birds on earth. A frigate bird can fly 95 miles per hour, which is 11 miles per hour slower than a spine-tailed swift. How fast can a spine-tailed swift fly?
A 84 miles per hour
B 101 miles per hour
C 106 miles per hour
D 116 miles per hour
- The Green Bay Packers and the Kansas City Chiefs played in the first Super Bowl in 1967. The Chiefs lost by 25 points, with a final score of 10. How many points did the Packers score in the first Super Bowl?
F 35
G 25
H 15
J 0
- The Rocky Mountains extend 3,750 miles across North America. That is 750 miles shorter than the Andes Mountains in South America. How long are the Andes Mountains?
A 3,000 miles C 180 miles
B 5 miles D 4,500 miles
- When the United States took its first census in 1790, only 4 million people lived here. That was 288 million fewer people than the population in 2003. What was the population of the United States in 2003?
F 292 million H 69 million
G 284 million J 1,108 million