

Name \_\_\_\_\_ Hour \_\_\_\_\_

### Regrouping with Mixed Numbers Practice

Subtract. Write each answer in simplest form.

1.  $3\frac{1}{4} - 2\frac{3}{4} =$  \_\_\_\_\_

2.  $3\frac{1}{6} - 1\frac{5}{6} =$  \_\_\_\_\_

3.  $4\frac{3}{8} - 1\frac{7}{8} =$  \_\_\_\_\_

4.  $3\frac{1}{3} - 2\frac{2}{3} =$  \_\_\_\_\_

5.  $5\frac{5}{12} - 2\frac{7}{12} =$  \_\_\_\_\_

6.  $3\frac{3}{10} - 1\frac{9}{10} =$  \_\_\_\_\_

7.  $3 - 1\frac{1}{4} =$  \_\_\_\_\_

8.  $4 - 1\frac{1}{3} =$  \_\_\_\_\_

**LESSON** **Problem Solving** **5-2** **Adding and Subtracting with Unlike Denominators**

CUBE

Use the circle graph to answer the questions. Write each answer in simplest form.

1. On which two continents do most people live? How much of the total population do they make up together?

\_\_\_\_\_

\_\_\_\_\_

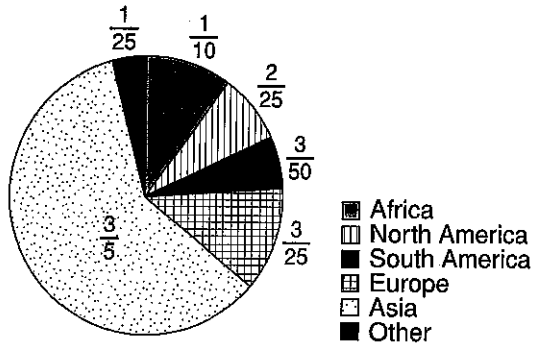
2. How much of the world's population live in either North America or South America?

\_\_\_\_\_

3. How much more of the world's total population lives in Asia than in Africa?

\_\_\_\_\_

World Population, 2001



Circle the letter of the correct answer.

4. How much of Earth's total population do people in Asia and Africa make up all together?
- A  $\frac{3}{10}$  of the population  
 B  $\frac{2}{5}$  of the population  
 C  $\frac{7}{10}$  of the population  
 D  $\frac{7}{5}$  of the population
5. What is the difference between North America's part of the total population and Africa's part?
- F Africa has  $\frac{1}{50}$  more.  
 G Africa has  $\frac{1}{50}$  less.  
 H Africa has  $\frac{9}{50}$  more.  
 J Africa has  $\frac{9}{50}$  less.
6. How much more of the population lives in Europe than in North America?
- A  $\frac{1}{25}$  of the population  
 B  $\frac{1}{5}$  of the population  
 C  $\frac{1}{15}$  of the population  
 D  $\frac{1}{10}$  of the population
7. How much of the world's population lives in North America and Europe?
- F  $\frac{1}{25}$  of the population  
 G  $\frac{1}{15}$  of the population  
 H  $\frac{1}{5}$  of the population  
 J  $\frac{1}{20}$  of the population

Show all work.

**LESSON** **Problem Solving** **CUBE**  
**5-3** **Adding and Subtracting Mixed Numbers**

Write the correct answer in simplest form.

- Of the planets in our solar system, Jupiter and Neptune have the greatest surface gravity. Jupiter's greatest surface gravity. Jupiter's gravitational pull is  $2\frac{16}{25}$  stronger than Earth's, and Neptune's is  $1\frac{1}{5}$  stronger. What is the difference between Jupiter's and Neptune's surface gravity levels?  
 \_\_\_\_\_
- Escape velocity is the speed a rocket must attain to overcome a planet's gravitational pull. Earth's escape velocity is  $6\frac{9}{10}$  miles per second! The Moon's escape velocity is  $5\frac{2}{5}$  miles per second slower. How fast does a rocket have to launch to escape the moon's gravity?  
 \_\_\_\_\_
- The two longest total solar eclipses occurred in 1991 and 1992. The first one lasted  $6\frac{5}{6}$  minutes. The eclipse of 1992 lasted  $5\frac{1}{3}$  minutes. How much longer was 1991's eclipse?  
 \_\_\_\_\_
- The two largest meteorites found in the U.S. landed in Canyon Diablo, Arizona, and Willamette, Oregon. The Arizona meteorite weighs  $33\frac{1}{10}$  tons! Oregon's weighs  $16\frac{1}{2}$  tons. How much do the two meteorites weigh in all?  
 \_\_\_\_\_

Show all work.

Circle the letter of the correct answer.

- Not including the Sun, Proxima Centauri is the closest star to Earth. It is  $4\frac{11}{50}$  light years away! The next closest star is Alpha Centauri. It is  $\frac{13}{100}$  light years farther than Proxima. How far is Alpha Centauri from Earth?  
 A  $4\frac{7}{20}$  light years  
 B  $4\frac{13}{100}$  light years  
 C  $4\frac{6}{25}$  light years  
 D  $4\frac{1}{50}$  light years
- It takes about  $5\frac{1}{3}$  minutes for light from the Sun to reach Earth. The Moon is closer to Earth, so its light reaches Earth faster—about  $5\frac{19}{60}$  minutes faster than from the Sun. How long does light from the Moon take to reach Earth?  
 F  $\frac{3}{10}$  of a minute  
 G  $\frac{1}{60}$  of a minute  
 H  $\frac{1}{3}$  of a minute  
 J  $\frac{4}{15}$  of a minute

**LESSON** **Problem Solving** **CUBE**  
**5-4 Regrouping to Subtract Mixed Numbers**

Write the correct answer in simplest form.

- |   |  |
|---|--|
| <p>1. The average person in the United States eats <math>6\frac{13}{16}</math> pounds of potato chips each year. The average person in Ireland eats <math>5\frac{15}{16}</math> pounds. How much more potato chips do Americans eat a year than people in Ireland?</p> <p>_____</p> | <p>2. The average person in the United States eats <math>270\frac{1}{16}</math> pounds of meat each year. The average person in Australia eats <math>238\frac{1}{2}</math> pounds. How much more meat do Americans eat a year than people in Australia?</p> <p>_____</p> |
| <p>3. The average Americans eats <math>24\frac{1}{2}</math> pounds of ice cream every year. The average person in Israel eats <math>15\frac{4}{5}</math> pounds. How much more ice cream do Americans eat each year?</p> <p>_____</p>   | <p>4. People in Switzerland eat the most chocolate—26 pounds a year per person. Most Americans eat <math>12\frac{9}{16}</math> pounds each year. How much more chocolate do the Swiss eat?</p> <p>_____</p>  |
| <p>5. The average person in the United States chews <math>1\frac{9}{16}</math> pounds of gum each year. The average person in Japan chews <math>\frac{7}{8}</math> pound. How much more gum do Americans chew?</p> <p>_____</p>   | <p>6. Norwegians eat the most frozen foods—<math>78\frac{1}{2}</math> pounds per person each year. Most Americans eat <math>35\frac{15}{16}</math> pounds. How much more frozen foods do people in Norway eat?</p> <p>_____</p>  |

Circle the letter of the correct answer.

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|---|--|
| <p>7. Most people around the world eat <math>41\frac{7}{8}</math> pounds of sugar each year. Most Americans eat <math>66\frac{3}{4}</math> pounds. How much more sugar do Americans eat than the world's average?</p> <p>A <math>25\frac{7}{8}</math> pounds more</p> <p>B <math>25\frac{1}{8}</math> pounds more</p> <p>C <math>24\frac{7}{8}</math> pounds more</p> <p>D <math>24\frac{1}{8}</math> pounds more</p> | <p>8. The average person eats 208 pounds of vegetables and <math>125\frac{5}{8}</math> pounds of fruit each year. How much more vegetables do most people eat than fruit?</p> <p>F <math>83\frac{5}{8}</math> pounds more</p> <p>G <math>82\frac{3}{8}</math> pounds more</p> <p>H <math>123\frac{5}{8}</math> pounds more</p> <p>J <math>83\frac{3}{8}</math> pounds more</p> |
|---|--|

Show all work.