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## **LESSON** Fraction Operations

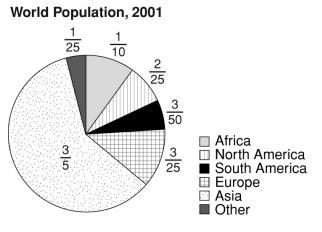
## Problem Solving: Adding and Subtracting with Unlike Denominators

## 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?

## 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
- 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



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.
- 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

| 5. $\frac{11}{12}$<br>7. $\frac{1}{2}$                            | 6. $\frac{7}{8}$<br>8. $\frac{1}{12}$                                      | 6. L; <u>3</u> – <u>3</u><br>L C D | $=\frac{9}{12}-\frac{3}{12}=\frac{6}{12}=\frac{1}{2}$ |  |
|---|--|------------------------------------|---|--|
| Challenge   |  | Answers for Lesson 3               |   |  |
| 1. $\frac{2}{3}$  | 2. $\frac{4}{5}$   | Practice A                         |   |  |
| 3. <u>5</u>   | 4. $\frac{3}{8}$   | 1. <u>5</u>                        | 2. 7 <u>17</u>  |  |
| 5. <u>9</u>   | o  | 3. $3\frac{14}{9}$                 | 4. $1\frac{4}{3}$                                     |  |
| Problem   | Solving  | 5. 6 <u>10</u><br>9                | 6. 9 <u>10</u><br>7                                   |  |
| 1. Asia and Europe; $\frac{18}{25}$ of the                        |  | 7. 1 <u>1</u>                      | 8. <u>3</u>   |  |
| population  |  | 9. 1 <u>3</u>                      | 10. <sup>1</sup> / <sub>2</sub>                       |  |
| 2. $\frac{7}{50}$ of the population                               |  | 11. <del>7</del>                   | 12. $\frac{3}{8}$                                     |  |
| 3. <u>1</u> 0<br>4. C   | f the population<br>5. F   | 13. 3 <del>1</del> /2              | 14. 1 <u>9</u><br>16                                  |  |
| 4. C<br>6. A  | 5. F<br>7. H   | 15. <u>8</u><br>15. <u>8</u>       | 16. $\frac{1}{2}$ of a pie                            |  |
| Reading Strategies 1. Fractions that have different denominators. |  | -                                  | 17. $\frac{5}{6}$ of an inch                          |  |
| 2. Find a common denominator.                                     |  | Practice B                         |   |  |
|   | iply the denominators.   | 1. 1 <u>5</u><br>8                 | 2. $2\frac{1}{2}$                                     |  |
| 4. three<br>6. $\frac{5}{6}$                                      | e 5. two<br>7. <u>1</u> 6  | 3. 5 <del>7</del> 9                | 4. 13 <del>17</del><br>21                             |  |
| Puzzles, Twisters & Teasers                                       |  | 5. 3 <u>5</u>                      | 6. $4\frac{1}{2}$                                     |  |
| -   | $\frac{1}{7} + \frac{1}{7} = \frac{7}{21} + \frac{3}{21} = \frac{10}{21}$  | 7. <del>7</del> 18                 | 8. 7 <u>13</u><br>16                                  |  |
| 2. C; <del>2</del>  | $\frac{1}{4} + \frac{1}{9} = \frac{9}{36} + \frac{4}{36} = \frac{13}{36}$  | 9. 2 <u>19</u><br>20               | 10.   |  |
| 3. D; <del>4</del> 5  | $\frac{1}{5} - \frac{1}{3} = \frac{12}{15} - \frac{5}{15} = \frac{7}{15}$  | 11. 1 <u>1</u>                     | 12. 2 <u>1</u>  |  |
| 4. S; <del>3</del>  | $\frac{1}{2} - \frac{3}{10} = \frac{15}{20} - \frac{6}{20} = \frac{9}{20}$ | 13. 1 <u>1</u>                     | 14. <u>2</u>  |  |
| 5. T; <del>-</del>  | $\frac{7}{2} + \frac{3}{8} = \frac{14}{24} + \frac{9}{24} = \frac{23}{24}$ | 15. 2 <del>3</del><br>4            |   |  |

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