

► Set 15 (Answers begin on page 171.)

- 225.** Hans has $5\frac{1}{2}$ pounds of sugar. He wants to make cookies for his son's kindergarten class. The cookie recipe calls for $\frac{2}{3}$ pound of sugar per dozen cookies. How many dozen cookies can he make?
- $6\frac{1}{3}$ dozen cookies
 - $7\frac{1}{5}$ dozen cookies
 - $8\frac{1}{4}$ dozen cookies
 - $9\frac{1}{2}$ dozen cookies
- 226.** John bought 2 pounds of butter to make cookies. If he used $\frac{1}{2}$ of a pound for chocolate chip cookies, $\frac{1}{8}$ of a pound for peanut butter cookies, and $\frac{2}{3}$ of a pound for sugar cookies, what part of the original 2 pounds is left?
- $\frac{4}{13}$
 - $\frac{22}{13}$
 - $\frac{17}{24}$
 - $\frac{31}{24}$
- 227.** Vonda is making a mosaic. Each tiny piece of glass in the artwork is $1\frac{1}{4}$ inch by $1\frac{3}{8}$ inch. What is the area of each piece?
- $1\frac{23}{32}$ square inches
 - $1\frac{21}{22}$ square inches
 - $1\frac{23}{25}$ square inches
 - $1\frac{29}{31}$ square inches
- 228.** Dan purchases $6\frac{1}{2}$ lbs. of potato chips for a party. If there are a total of 8 people at the party, how many pounds of chips does each person get?
- $\frac{13}{16}$ of a pound
 - $1\frac{1}{4}$ pounds
 - 2 pounds
 - $2\frac{1}{4}$ pounds
- 229.** Marilyn has $17\frac{3}{4}$ feet of wallpaper border. Each of the four walls in her bathroom is nine feet long. How much more wallpaper border does Marilyn need?
- $17\frac{3}{4}$ feet
 - $16\frac{1}{2}$ feet
 - $18\frac{1}{4}$ feet
 - $19\frac{1}{2}$ feet
- 230.** A recipe calls for all the liquid ingredients to be mixed together: $2\frac{1}{4}$ cups of water, $4\frac{5}{8}$ cups of chicken stock, and $\frac{1}{2}$ cup of honey. How many cups of liquid are in the recipe?
- $6\frac{7}{8}$ cups
 - $7\frac{1}{4}$ cups
 - $7\frac{3}{8}$ cups
 - $7\frac{3}{4}$ cups
- 231.** A loaf of bread has 35 slices. Ann eats 8 slices, Betty eats 6 slices, Carl eats 5, and Derrick eats 9 slices. What fraction of the loaf is left?
- $\frac{2}{11}$
 - $\frac{1}{9}$
 - $\frac{2}{7}$
 - $\frac{1}{5}$

- 232.** Frances wants to run $2\frac{1}{3}$ miles every day. Today she has gone $\frac{7}{8}$ mile. How much farther does she have to go?
- $1\frac{11}{24}$ miles
 - $1\frac{1}{3}$ miles
 - $1\frac{41}{50}$ miles
 - $1\frac{307}{308}$ miles
- 233.** Ribbon in a craft store costs \$.75 per yard. Vernon needs to buy $7\frac{1}{3}$ yards. How much will it cost?
- \$7.33
 - \$6.95
 - \$5.50
 - \$4.25
- 234.** Linda needs to read 14 pages for her History class, 26 pages for English, 12 pages for Civics, and 28 pages for Biology. She has read $\frac{1}{6}$ of the entire number of pages. How many pages has she read?
- 80 pages
 - $13\frac{1}{3}$ pages
 - $48\frac{1}{2}$ pages
 - 17 pages
- 235.** Ted has to write a $5\frac{1}{2}$ page paper. He's finished $3\frac{1}{3}$ pages. How many pages does he have left to write?
- $1\frac{3}{5}$ pages
 - $1\frac{7}{8}$ pages
 - $2\frac{2}{3}$ pages
 - $2\frac{1}{6}$ pages
- 236.** Maria made \$331.01 last week. She worked $39\frac{1}{2}$ hours. What is her hourly wage?
- \$8.28
 - \$8.33
 - \$8.38
 - \$8.43
- 237.** Virgil ate $\frac{3}{7}$ of a chocolate chip cookie; Aristotle ate $\frac{1}{3}$ of the same cookie. How much of the cookie is left?
- $\frac{1}{3}$ cookie
 - $\frac{3}{7}$ cookie
 - $\frac{7}{10}$ cookie
 - $\frac{5}{21}$ cookie
- 238.** Manuel has worked $6\frac{5}{8}$ hours of his regular 8-hour day. How many more hours must he work?
- $1\frac{1}{2}$ hours
 - $1\frac{3}{8}$ hours
 - $2\frac{1}{4}$ hours
 - $1\frac{1}{4}$ hours
- 239.** Irma has read $\frac{3}{5}$ of the novel assigned for her English class. The novel is 360 pages long. How many pages has she read?
- 216 pages
 - 72 pages
 - 300 pages
 - 98 pages
- 240.** Jerry rode his bike $7\frac{3}{4}$ miles on Monday, $5\frac{1}{5}$ miles on Tuesday, $6\frac{2}{5}$ miles on Wednesday, $7\frac{1}{2}$ miles on Thursday, $5\frac{1}{4}$ miles on Friday, and $6\frac{3}{5}$ miles on Saturday. How many total miles did he bike on those six days?
- 36 miles
 - 38 miles
 - $38\frac{7}{10}$ miles
 - $38\frac{14}{15}$ miles

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- 225.** c. To find out how many dozen cookies Hans can make, divide $5\frac{1}{2}$ by $\frac{2}{3}$. First, convert $5\frac{1}{2}$ to $\frac{11}{2}$, then multiply by $\frac{3}{2}$, which is the same as dividing by $\frac{2}{3}$; $\frac{11}{2} \times \frac{3}{2} = \frac{33}{4}$, or $8\frac{1}{4}$ dozen.
- 226.** c. Add the fractions and subtract the total from 2. The least common denominator is 24 so the fractions become $\frac{12}{24} + \frac{3}{24} + \frac{16}{24}$ which adds to $\frac{31}{24}$. Two pounds is equal to $\frac{48}{24}$, so $\frac{48}{24} - \frac{31}{24} = \frac{17}{24}$.
- 227.** a. To multiply mixed numbers, convert to improper fractions, or $\frac{5}{4} \times \frac{11}{8} = \frac{55}{32}$, or $1\frac{23}{32}$ square inches.
- 228.** a. Divide $6\frac{1}{2}$ lbs. by 8 people; $6\frac{1}{2} \div 8$ equals $\frac{13}{2} \div \frac{8}{1}$. To divide fractions, multiply by the reciprocal of the fraction being divided by; $\frac{13}{2} \times \frac{1}{8} = \frac{13}{16}$.
- 229.** c. It is 36 linear feet around the perimeter of the room (9×4); $36 - 17\frac{3}{4} = \frac{73}{4}$ or $18\frac{1}{4}$.
- 230.** c. Mixed numbers must be converted to fractions, and you must use the least common denominator of 8; $\frac{18}{8} + \frac{37}{8} + \frac{4}{8} = \frac{59}{8}$, which is $7\frac{3}{8}$ after it is reduced.

- 231. d.** Since 28 of the 35 slices have been eaten, there are $35 - 28 = 7$ slices left. This means $\frac{7}{35}$, or $\frac{1}{5}$ of the loaf is left.
- 232. a.** The common denominator is 24; $\frac{56}{24} - \frac{21}{24} = \frac{35}{24}$ or $1\frac{11}{24}$.
- 233. c.** Convert both the cost and the length to fractions; $\frac{3}{4} \times \frac{22}{3} = \frac{66}{12}$ or $5\frac{1}{2}$, which is \$5.50.
- 234. b.** The total number of pages assigned is 80; $\frac{1}{6} \times 80 = \frac{80}{6}$ or $13\frac{1}{3}$.
- 235. d.** To subtract, convert to improper fractions, find a common denominator and subtract the numerators; $\frac{11}{2} - \frac{10}{3} = \frac{33}{6} - \frac{20}{6} = \frac{13}{6}$ or $2\frac{1}{6}$.
- 236. c.** To find the hourly wage, divide the total salary by the number of hours worked, or 331.01 divided by $39\frac{1}{2}$, converted to a decimal, which is 39.5, which equals 8.38.
- 237. d.** First, find how much of the cookie was eaten by adding the two fractions. After converting to the least common denominator the amount eaten is $\frac{9}{21} + \frac{7}{21} = \frac{16}{21}$. This means $\frac{5}{21}$ of the cookie is left.
- 238. b.** When subtracting mixed fractions, subtract the fractions first. Since 8 contains no fractions, convert to $7\frac{8}{8}$, then subtract, in this case, $\frac{8}{8} - \frac{5}{8} = \frac{3}{8}$. Then subtract the whole numbers, in this case $7 - 6 = 1$ (remember, 8 was converted to $7\frac{8}{8}$). Add the results, or $1\frac{3}{8}$.
- 239. a.** $\frac{3}{5}$ of 360 is figured as $\frac{3}{5} \times \frac{360}{1} = \frac{1080}{5}$ or 216.
- 240. c.** The least common denominator of the fractions is 20. When added together, the fraction part of each mixed number adds to $\frac{54}{20} = 2\frac{14}{20}$ which reduces to $2\frac{7}{10}$. The sum of the whole numbers is 36; $2\frac{7}{10} + 36 = 38\frac{7}{10}$.