Test Bank for Basic College Mathematics 10th Lial

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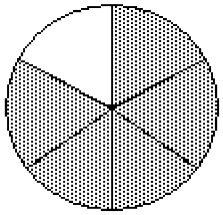
Exam

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

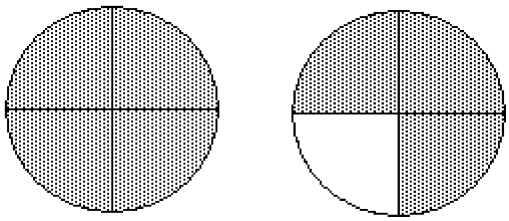
Write fractions to represent the shaded and unshaded portions of the figure.

1) 1) _____



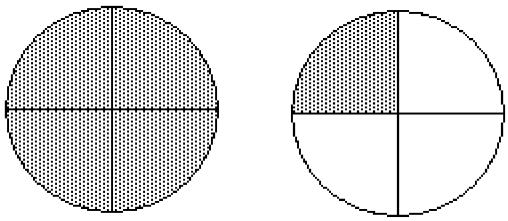
A) $\frac{1}{6}, \frac{5}{6}$ B) $\frac{5}{1}, \frac{5}{4}$ C) $\frac{5}{6}, \frac{1}{6}$ D) $\frac{1}{5}, \frac{4}{5}$

2) 2) _____



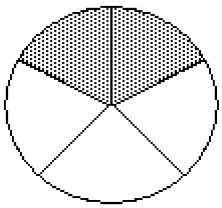
A) $\frac{1}{7}, \frac{6}{7}$ B) $\frac{7}{4}, \frac{1}{4}$ C) $\frac{3}{4}, \frac{1}{4}$ D) $\frac{7}{8}, \frac{1}{8}$

3) 3) _____



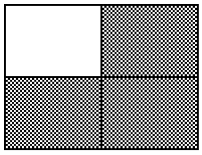
A) $\frac{5}{3}, \frac{3}{3}$ B) $\frac{5}{8}, \frac{3}{8}$ C) $\frac{5}{4}, \frac{3}{4}$ D) $\frac{3}{5}, \frac{5}{5}$

4) 4) _____



A) $\frac{2}{5}, \frac{3}{5}$ B) $\frac{3}{2}, \frac{1}{2}$ C) $\frac{5}{2}, \frac{5}{3}$ D) $\frac{2}{3}, \frac{1}{3}$

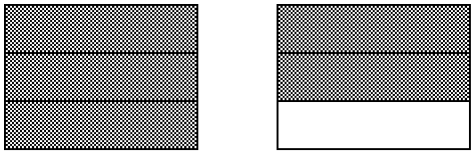
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5)  5) _____

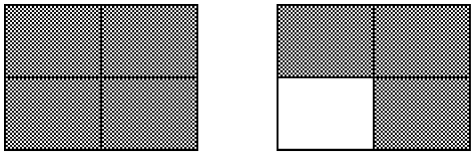
A) $\frac{3}{4}, \frac{1}{4}$ B) $\frac{3}{1}, \frac{3}{2}$ C) $\frac{1}{4}, \frac{3}{4}$ D) $\frac{1}{3}, \frac{2}{3}$

6)  6) _____

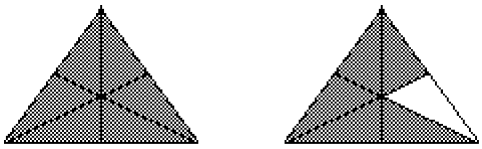
A) $\frac{5}{8}, \frac{3}{8}$ B) $\frac{5}{3}, \frac{5}{2}$ C) $\frac{3}{5}, \frac{2}{5}$ D) $\frac{3}{8}, \frac{5}{8}$

7)  7) _____

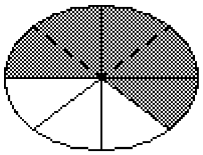
A) $\frac{1}{5}, \frac{1}{1}$ B) $\frac{5}{3}, \frac{1}{3}$ C) $\frac{5}{1}, \frac{1}{1}$ D) $\frac{5}{6}, \frac{1}{6}$

8)  8) _____

A) $\frac{7}{8}, \frac{1}{8}$ B) $\frac{1}{7}, \frac{4}{1}$ C) $\frac{7}{4}, \frac{1}{4}$ D) $\frac{7}{1}, \frac{1}{4}$

9)  9) _____

A) $\frac{11}{12}, \frac{1}{12}$ B) $\frac{11}{1}, \frac{1}{12}$ C) $\frac{1}{11}, \frac{12}{1}$ D) $\frac{11}{6}, \frac{1}{6}$

10)  10) _____

A) $\frac{5}{8}, \frac{3}{8}$ B) $\frac{5}{3}, \frac{1}{3}$ C) $\frac{3}{5}, \frac{2}{5}$ D) $\frac{3}{8}, \frac{5}{8}$

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Solve the problem.

11) Of 11 crates of apples, 4 crates are Granny Smiths. What fraction of the crates are Granny Smiths? 11) _____

A) $\frac{11}{7}$ B) $\frac{4}{11}$ C) $\frac{7}{11}$ D) $\frac{11}{4}$

12) Of 11 crates of apples, 10 crates are Granny Smiths. What fraction of the crates are not Granny Smiths? 12) _____

A) $\frac{11}{10}$ B) $\frac{11}{1}$ C) $\frac{10}{11}$ D) $\frac{1}{11}$

13) A high school basketball team has 10 members. If 7 of the team members are juniors, find the fraction of the team members that are juniors. 13) _____

A) $\frac{10}{7}$ B) $\frac{3}{10}$ C) $\frac{7}{10}$ D) $\frac{10}{3}$

14) A high school basketball team has 9 members. If 5 of the team members are juniors and the rest are seniors, find the fraction of the team members that are seniors. 14) _____

A) $\frac{9}{4}$ B) $\frac{4}{9}$ C) $\frac{9}{5}$ D) $\frac{5}{9}$

15) In a microbiology class of 31 students, 9 students are graduate students. What fraction of the students are graduate students? 15) _____

A) $\frac{31}{9}$ B) $\frac{22}{31}$ C) $\frac{9}{31}$ D) $\frac{31}{22}$

16) In a microbiology class of 41 students, 17 students are graduate students. What fraction of the students are not graduate students? 16) _____

A) $\frac{41}{24}$ B) $\frac{41}{17}$ C) $\frac{17}{41}$ D) $\frac{24}{41}$

17) Of 114 bicycles in a bike rack, 61 are mountain bikes. What fraction of the bicycles are mountain bikes? 17) _____

A) $\frac{114}{53}$ B) $\frac{53}{114}$ C) $\frac{61}{114}$ D) $\frac{114}{61}$

18) Of 80 bicycles in a bike rack, 37 are mountain bikes. What fraction of the bicycles are not mountain bikes? 18) _____

A) $\frac{80}{43}$ B) $\frac{37}{80}$ C) $\frac{43}{80}$ D) $\frac{80}{37}$

19) Of 210 trees in the park, 59 are coniferous trees. What fraction of the trees are coniferous trees? 19) _____

A) $\frac{210}{151}$ B) $\frac{59}{210}$ C) $\frac{151}{210}$ D) $\frac{210}{59}$

20) Of 180 trees in the park, 41 are coniferous trees. What fraction of the trees are not coniferous trees? 20) _____

A) $\frac{41}{180}$ B) $\frac{180}{41}$ C) $\frac{180}{139}$ D) $\frac{139}{180}$

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Identify the numerator and denominator.

21) $\frac{5}{3}$ 21) _____

A) Numerator $\frac{3}{5}$ Denominator 5

B) Numerator 5 Denominator 3

C) Numerator 8 Denominator 1

D) Numerator 3 Denominator 5

22) $\frac{13}{23}$ 22) _____

A) Numerator 13 Denominator 23

B) Numerator $\frac{13}{23}$ Denominator 1

C) Numerator 23 Denominator 13

D) Numerator 1 Denominator $\frac{23}{13}$

List the proper fractions in the group.

23) $\frac{9}{7}, \frac{5}{12}, \frac{7}{15}, \frac{3}{17}$ 23) _____

A) $\frac{9}{7}$

B) $\frac{9}{7}, \frac{13}{17}$

C) $\frac{5}{12}, \frac{7}{15}, \frac{3}{17}$

D) $\frac{9}{7}, \frac{5}{12}, \frac{7}{15}, \frac{3}{17}$

24) $\frac{1}{4}, \frac{11}{7}, \frac{18}{18}, \frac{5}{4}, \frac{8}{3}$ 24) _____

A) $\frac{1}{4}, \frac{5}{4}, \frac{8}{3}$

B) $\frac{1}{4}, \frac{11}{7}, \frac{18}{18}, \frac{5}{4}, \frac{8}{3}$

C) $\frac{11}{7}, \frac{18}{18}, \frac{5}{4}, \frac{8}{3}$

D) $\frac{1}{4}$

25) $\frac{7}{12}, \frac{14}{13}, \frac{7}{2}, \frac{11}{4}, \frac{3}{4}$ 25) _____

A) $\frac{7}{2}, \frac{11}{4}, \frac{3}{4}$

B) $\frac{7}{12}, \frac{3}{4}$

C) $\frac{14}{13}, \frac{7}{2}, \frac{11}{4}$

D) $\frac{7}{12}, \frac{11}{4}, \frac{3}{4}$

26) $\frac{16}{13}, \frac{13}{12}, \frac{11}{8}, \frac{17}{17}, \frac{2}{3}$ 26) _____

A) $\frac{2}{3}$

B) $\frac{11}{8}$

C) $\frac{16}{13}, \frac{13}{12}, \frac{11}{8}, \frac{2}{3}$

D) $\frac{13}{12}, \frac{11}{8}, \frac{17}{17}$

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27) $\frac{3}{7}, \frac{5}{19}, \frac{7}{7}, \frac{2}{11}, \frac{16}{219}$ 27) _____

A) $\frac{5}{19}, \frac{7}{7}, \frac{2}{11}$

B) $\frac{3}{7}, \frac{5}{19}, \frac{7}{7}, \frac{2}{11}, \frac{16}{219}$

C) $\frac{7}{7}$

D) $\frac{3}{7}, \frac{5}{19}, \frac{2}{11}, \frac{16}{219}$

28) $\frac{9}{7}, \frac{5}{12}, \frac{7}{15}, \frac{19}{12}, \frac{3}{17}$ 28) _____

A) $\frac{9}{7}, \frac{5}{12}, \frac{7}{15}$

B) $\frac{5}{12}, \frac{7}{15}, \frac{3}{17}$

C) $\frac{9}{7}, \frac{19}{12}$

D) $\frac{9}{7}, \frac{5}{12}, \frac{7}{15}, \frac{19}{12}, \frac{3}{17}$

List the improper fractions in the group.

29) $\frac{16}{3}, \frac{9}{38}, \frac{5}{8}, \frac{55}{39}, \frac{63}{63}$ 29) _____

A) $\frac{16}{3}, \frac{9}{38}, \frac{5}{8}, \frac{63}{63}$

B) $\frac{9}{38}, \frac{5}{8}$

C) $\frac{16}{3}, \frac{9}{38}, \frac{5}{8}, \frac{55}{39}, \frac{63}{63}$

D) $\frac{16}{3}, \frac{55}{39}, \frac{63}{63}$

30) $\frac{36}{8}, \frac{4}{51}, \frac{4}{9}, \frac{61}{56}, \frac{58}{58}$ 30) _____

A) $\frac{36}{8}, \frac{4}{51}, \frac{4}{9}, \frac{58}{58}$

B) $\frac{36}{8}, \frac{61}{56}, \frac{58}{58}$

C) $\frac{4}{51}, \frac{4}{9}$

D) $\frac{36}{8}, \frac{4}{51}, \frac{4}{9}, \frac{61}{56}, \frac{58}{58}$

31) $\frac{48}{4}, \frac{7}{49}, \frac{4}{8}, \frac{59}{36}, \frac{43}{43}$ 31) _____

A) $\frac{7}{49}, \frac{4}{8}$

B) $\frac{48}{4}, \frac{7}{49}, \frac{4}{8}, \frac{43}{43}$

C) $\frac{48}{4}, \frac{7}{49}, \frac{4}{8}, \frac{59}{36}, \frac{43}{43}$

D) $\frac{48}{4}, \frac{59}{36}, \frac{43}{43}$

32) $\frac{33}{3}, \frac{3}{29}, \frac{2}{6}, \frac{59}{50}, \frac{55}{55}$ 32) _____

A) $\frac{33}{3}, \frac{59}{50}, \frac{55}{55}$

B) $\frac{33}{3}, \frac{3}{29}, \frac{2}{6}, \frac{59}{50}, \frac{55}{55}$

C) $\frac{3}{29}, \frac{2}{6}$

D) $\frac{33}{3}, \frac{3}{29}, \frac{2}{6}, \frac{55}{55}$

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33) $\frac{62}{7}, \frac{3}{32}, \frac{4}{5}, \frac{62}{52}, \frac{27}{27}$ 33) _____

A) $\frac{3}{32}, \frac{4}{5}$

B) $\frac{62}{7}, \frac{62}{52}, \frac{27}{27}$

C) $\frac{62}{7}, \frac{3}{32}, \frac{4}{5}, \frac{62}{52}, \frac{27}{27}$

D) $\frac{62}{7}, \frac{3}{32}, \frac{4}{5}, \frac{27}{27}$

34) $\frac{28}{7}, \frac{7}{21}, \frac{2}{4}, \frac{45}{31}, \frac{46}{46}$ 34) _____

A) $\frac{28}{7}, \frac{7}{21}, \frac{2}{4}, \frac{45}{31}, \frac{46}{46}$

B) $\frac{28}{7}, \frac{45}{31}, \frac{46}{46}$

C) $\frac{7}{21}, \frac{2}{4}$

D) $\frac{28}{7}, \frac{7}{21}, \frac{2}{4}, \frac{46}{46}$

Fill in the blanks to complete the sentence.

35) The fraction $\frac{19}{32}$ represents ____ of the ____ equal parts into which a whole is divided. 35) _____

A) 19, 32 B) 32, 19 C) $\frac{19}{32}$, 19 D) $\frac{19}{32}$, 32

Write the mixed number as an improper fraction.

36) $4\frac{5}{7}$ 36) _____

A) $\frac{33}{5}$ B) $\frac{33}{7}$ C) $\frac{28}{7}$ D) $\frac{28}{5}$

37) $5\frac{3}{4}$ 37) _____

A) $\frac{23}{4}$ B) $\frac{23}{3}$ C) $\frac{20}{3}$ D) $\frac{20}{4}$

38) $9\frac{2}{5}$ 38) _____

A) $\frac{45}{2}$ B) $\frac{47}{5}$ C) $\frac{45}{5}$ D) $\frac{47}{2}$

39) $7\frac{2}{5}$ 39) _____

A) $\frac{37}{5}$ B) $\frac{35}{2}$ C) $\frac{37}{2}$ D) $\frac{35}{5}$

40) $15\frac{7}{10}$ 40) _____

A) $\frac{105}{10}$ B) $\frac{157}{10}$ C) $\frac{167}{10}$ D) $\frac{22}{10}$

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41) $10\frac{3}{4}$ 41) _____

A) $\frac{43}{4}$ B) 22 C) $\frac{15}{2}$ D) 120

Write the improper fraction as a whole or mixed number.

42) $\frac{44}{3}$ 42) _____

A) $\frac{2}{3}$ B) $14\frac{2}{3}$ C) $13\frac{2}{7}$ D) $15\frac{2}{3}$

43) $\frac{38}{4}$ 43) _____

A) $8\frac{1}{2}$ B) $9\frac{1}{2}$ C) $9\frac{1}{7}$ D) $10\frac{1}{2}$

44) $\frac{44}{5}$ 44) _____

A) $8\frac{4}{7}$ B) $8\frac{4}{5}$ C) $7\frac{4}{5}$ D) $9\frac{4}{5}$

45) $\frac{43}{6}$ 45) _____

A) $7\frac{1}{6}$ B) $8\frac{1}{6}$ C) $7\frac{1}{7}$ D) $6\frac{1}{6}$

46) $\frac{18}{8}$ 46) _____

A) $2\frac{2}{8}$ B) $3\frac{2}{8}$ C) $1\frac{2}{8}$ D) $2\frac{2}{7}$

47) $\frac{56}{7}$ 47) _____

A) 8 B) 57 C) 55 D) $\frac{8}{2}$

48) $\frac{186}{11}$ 48) _____

A) $186\frac{186}{11}$ B) $186\frac{11}{186}$ C) $16\frac{10}{11}$ D) $\frac{11}{186}$

49) $\frac{1133}{14}$ 49) _____

A) $1133\frac{1133}{14}$ B) $\frac{14}{1133}$ C) $1133\frac{14}{1133}$ D) $80\frac{13}{14}$

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50) $\frac{2170}{14}$ 50) _____

A) 2169 B) 2171 C) $\frac{155}{2}$ D) 155

Find all the factors for the number.

51) 30 51) _____

A) 5, 6, 10, 30
B) 1, 2, 3, 5, 6, 10, 20, 30
C) 1, 5, 6, 30
D) 1, 2, 3, 5, 6, 10, 15, 30

52) 28 52) _____

A) 1, 2, 4, 7, 14, 28
B) 1, 2, 4, 7, 8, 14, 28
C) 2, 7, 14, 28
D) 1, 2, 7, 14, 28

53) 36 53) _____

A) 1, 2, 3, 4, 6, 9, 12, 18, 36
B) 1, 2, 3, 4, 5, 6, 9, 10, 12, 18, 36
C) 1, 2, 4, 6, 12, 18, 36
D) 2, 4, 6, 12, 18, 36

54) 45 54) _____

A) 1, 3, 5, 15, 45
B) 1, 3, 5, 9, 15, 45
C) 1, 2, 3, 5, 9, 15, 30, 45
D) 1, 3, 5, 9, 15, 30, 45

55) 56 55) _____

A) 1, 2, 3, 4, 7, 8, 14, 18, 28, 56
B) 1, 2, 4, 7, 8, 14, 18, 28, 56
C) 2, 4, 7, 8, 14, 28
D) 1, 2, 4, 7, 8, 14, 28, 56

56) 63 56) _____

A) 3, 5, 7, 9, 11, 21, 63
B) 1, 2, 3, 7, 9, 21, 36, 63
C) 1, 3, 7, 9, 21, 63
D) 1, 3, 5, 7, 9, 11, 21, 63

57) 66 57) _____

A) 1, 2, 3, 9, 11, 22, 33, 66
B) 1, 3, 11, 22, 33, 66
C) 1, 2, 3, 6, 11, 22, 33, 66
D) 1, 2, 3, 4, 11, 16, 22, 33, 66

58) 70 58) _____

A) 1, 3, 5, 7, 9, 15, 20, 35, 70
B) 1, 2, 3, 5, 7, 9, 15, 35, 70
C) 1, 2, 5, 7, 10, 14, 35, 70
D) 1, 2, 5, 7, 35, 70

59) 72 59) _____

A) 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 18, 24, 36, 72
B) 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72
C) 1, 2, 3, 4, 6, 8, 9, 12, 24, 36, 72
D) 1, 2, 3, 4, 6, 9, 12, 14, 18, 24, 36, 72

60) 84 60) _____

A) 1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42, 84
B) 1, 2, 3, 4, 7, 14, 21, 28, 42, 84
C) 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 14, 21, 28, 42, 84
D) 1, 2, 3, 4, 6, 7, 12, 14, 21, 42, 84

Decide whether the number is prime or composite.

61) 42 61) _____

A) Prime
B) Composite

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62) 73 62) _____

A) Prime B) Composite

63) 54 63) _____

A) Prime B) Composite

64) 11 64) _____

A) Prime B) Composite

65) 10 65) _____

A) Prime B) Composite

Find the prime factorization of the number. Write the answer with exponents when repeated factors appear.

66) 175 66) _____

A) 7^2 B) $25 \cdot 5$ C) $5^2 \cdot 7$ D) $25 \cdot 7$

67) 217 67) _____

A) 7^2 B) $7^2 \cdot 31$ C) $7 \cdot 29$ D) $7 \cdot 31$

68) 40 68) _____

A) $2^2 \cdot 5$ B) $2^3 \cdot 3$ C) $2^2 \cdot 7$ D) $2^3 \cdot 5$

69) 144 69) _____

A) $2^4 \cdot 3^2$ B) $2^4 \cdot 3$ C) $2^3 \cdot 3^2$ D) $2^3 \cdot 3$

70) 42 70) _____

A) $2^2 \cdot 7$ B) $3^2 \cdot 2$ C) $2 \cdot 3 \cdot 7$ D) $6 \cdot 7$

71) 90 71) _____

A) $2 \cdot 3^2 \cdot 5$ B) $10 \cdot 3^2$ C) $2^2 \cdot 3^2 \cdot 5$ D) $2 \cdot 3 \cdot 5$

72) 252 72) _____

A) $3^4 \cdot 7$ B) $2^3 \cdot 3^2 \cdot 7$ C) $2^4 \cdot 7$ D) $2^2 \cdot 3^2 \cdot 7$

73) 2600 73) _____

A) $2^3 \cdot 5^3 \cdot 13$ B) $2^3 \cdot 5^2 \cdot 13$ C) $2^4 \cdot 5 \cdot 13$ D) $2 \cdot 5^4 \cdot 13$

74) 2600 74) _____

A) $2^3 \cdot 5 \cdot 13$ B) $2^3 \cdot 5^2 \cdot 11$ C) $2^2 \cdot 5^2 \cdot 13$ D) $2^3 \cdot 5^2 \cdot 13$

75) 3960 75) _____

A) $2^3 \cdot 3^2 \cdot 5 \cdot 11$ B) $2^2 \cdot 3^3 \cdot 5 \cdot 11$ C) $2^3 \cdot 3^2 \cdot 11$ D) $2^3 \cdot 3^2 \cdot 5 \cdot 7$

Determine whether the number is divisible by 2, 3, 4, 5, 6, 7, 8, 9, and/or 10.

76) 30 76) _____

A) 2, 3, 5, 6, 10 B) 2, 3, 5, 6 C) 2, 3, 5, 10 D) 2, 3, 5

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77) 3800 77) _____
A) 2, 4, 5 B) 2, 5, 8, 10 C) 2, 5, 4, 8, 10 D) 2, 4, 5, 8

78) 23 78) _____
A) 3, 5 B) 3, 7 C) None D) 3

79) 209 79) _____
A) 3 B) 3, 7 C) None D) 3, 5

80) 80,401 80) _____
A) 3, 5 B) 3, 7 C) None D) 3

81) 7138 81) _____
A) 2 B) 2, 3, 4 C) 4 D) 3, 4

82) 4602 82) _____
A) 2, 3, 4 B) 2, 3, 6 C) 3, 4, 6 D) 4, 5, 6

83) 2035 83) _____
A) 5 B) 10 C) 2, 5, 10 D) 5, 10

84) 9417 84) _____
A) 3, 9 B) 2, 3, 9 C) 9 D) 3

85) 51,620 85) _____
A) 2, 5 B) 4, 5, 10 C) 2, 4, 5, 10 D) 4, 5

Write the fraction in lowest terms.

86) $\frac{3}{9}$ 86) _____
A) $\frac{3}{1}$ B) $\frac{3}{3}$ C) $\frac{1}{3}$ D) $\frac{1}{9}$

87) $\frac{8}{28}$ 87) _____
A) $\frac{2}{28}$ B) $\frac{4}{14}$ C) $\frac{3}{8}$ D) $\frac{2}{7}$

88) $\frac{20}{28}$ 88) _____
A) $\frac{4}{7}$ B) $\frac{20}{28}$ C) $\frac{5}{4}$ D) $\frac{5}{7}$

89) $\frac{105}{135}$ 89) _____
A) $\frac{105}{135}$ B) $\frac{15}{9}$ C) $\frac{7}{15}$ D) $\frac{7}{9}$

Access Complete Test Bank for Basic College Mathematics 10th Lial

90) $\frac{41}{43}$ 90) _____

A) $\frac{41}{43}$ B) $\frac{21}{20}$ C) $\frac{20}{21}$ D) $\frac{1}{43}$

91) $\frac{70}{90}$ 91) _____

A) $\frac{7}{10}$ B) $\frac{70}{90}$ C) $\frac{7}{9}$ D) $\frac{10}{9}$

92) $\frac{60}{65}$ 92) _____

A) $\frac{12}{5}$ B) $\frac{60}{65}$ C) $\frac{5}{13}$ D) $\frac{12}{13}$

93) $\frac{50}{80}$ 93) _____

A) $\frac{10}{8}$ B) $\frac{5}{8}$ C) $\frac{5}{10}$ D) $\frac{50}{80}$

94) $\frac{221}{238}$ 94) _____

A) $\frac{17}{14}$ B) $\frac{221}{238}$ C) $\frac{13}{17}$ D) $\frac{13}{14}$

95) $\frac{476}{17}$ 95) _____

A) 28 B) $\frac{1}{28}$ C) 29 D) $\frac{476}{17}$

Write the numerator and denominator of the fraction as a product of prime factors and divide by the common factors. Then write the fraction in lowest terms.

96) $\frac{12}{16}$ 96) _____

A) $\frac{2 \cdot 2 \cdot 3}{2 \cdot 2 \cdot 2 \cdot 2} = \frac{3}{2}$ B) $\frac{2 \cdot 2 \cdot 3}{2 \cdot 2 \cdot 2 \cdot 2} = \frac{3}{4}$ C) $\frac{2 \cdot 2 \cdot 3}{2 \cdot 2 \cdot 2} = \frac{3}{2}$ D) $\frac{2 \cdot 3}{2 \cdot 2 \cdot 2} = \frac{3}{4}$

97) $\frac{15}{60}$ 97) _____

A) $\frac{1 \cdot 5}{2 \cdot 3 \cdot 5} = \frac{5}{4}$ B) $\frac{2 \cdot 3 \cdot 5}{2 \cdot 2 \cdot 3 \cdot 5} = \frac{1}{5}$ C) $\frac{3 \cdot 5}{2 \cdot 2 \cdot 3 \cdot 5} = \frac{1}{4}$ D) $\frac{2 \cdot 2 \cdot 3 \cdot 5}{2 \cdot 3 \cdot 5} = \frac{5}{1}$

98) $\frac{24}{140}$ 98) _____

A) $\frac{2 \cdot 2 \cdot 2 \cdot 3}{2 \cdot 2 \cdot 2 \cdot 7} = \frac{3}{5}$ B) $\frac{2 \cdot 2 \cdot 3}{2 \cdot 5 \cdot 7} = \frac{6}{35}$ C) $\frac{2 \cdot 2 \cdot 2 \cdot 3}{2 \cdot 2 \cdot 5 \cdot 7} = \frac{6}{35}$ D) $\frac{2 \cdot 2 \cdot 3 \cdot 3}{2 \cdot 2 \cdot 5 \cdot 7} = \frac{9}{35}$

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99) $\frac{1512}{364}$ 99) _____

A) $\frac{2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 3 \cdot 7}{2 \cdot 2 \cdot 7 \cdot 13} = \frac{1512}{364}$

B) $\frac{2 \cdot 2 \cdot 3 \cdot 3 \cdot 3 \cdot 7}{2 \cdot 7 \cdot 13} = \frac{54}{13}$

C) $\frac{2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 3 \cdot 7}{2 \cdot 2 \cdot 7 \cdot 13} = \frac{54}{13}$

D) $\frac{2 \cdot 3 \cdot 3 \cdot 7}{13} = \frac{54}{13}$

Write the fractions in lowest terms. Then determine whether the pair of fractions is equivalent or not equivalent.

100) $\frac{6}{9}$ and $\frac{12}{18}$ 100) _____

A) Equivalent B) Not equivalent

101) $\frac{1}{5}$ and $\frac{2}{25}$ 101) _____

A) Equivalent B) Not equivalent

102) $\frac{2}{7}$ and $\frac{11}{16}$ 102) _____

A) Equivalent B) Not equivalent

103) $\frac{2}{9}$ and $\frac{24}{108}$ 103) _____

A) Equivalent B) Not equivalent

104) $\frac{9}{81}$ and $\frac{8}{72}$ 104) _____

A) Equivalent B) Not equivalent

105) $\frac{45}{63}$ and $\frac{50}{77}$ 105) _____

A) Equivalent B) Not Equivalent

Multiply. Write the answer in lowest terms.

106) $\frac{2}{9} \cdot \frac{1}{2}$ 106) _____

A) $\frac{1}{9}$ B) $\frac{2}{18}$ C) $\frac{3}{11}$ D) $\frac{2}{11}$

107) $\frac{1}{6} \cdot \frac{3}{7}$ 107) _____

A) $\frac{3}{10}$ B) $\frac{4}{13}$ C) $\frac{1}{14}$ D) $\frac{3}{42}$

108) $\frac{1}{9} \cdot \frac{1}{4}$ 108) _____

A) $\frac{2}{13}$ B) $\frac{9}{4}$ C) 36 D) $\frac{1}{36}$

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109) $\frac{1}{2} \cdot \frac{1}{6}$ 109) _____

A) $\frac{1}{3}$ B) $\frac{1}{12}$ C) $\frac{1}{4}$ D) 12

110) $\frac{1}{3} \cdot \frac{14}{19}$ 110) _____

A) $\frac{14}{57}$ B) $\frac{19}{42}$ C) $\frac{42}{19}$ D) $\frac{14}{3}$

111) $\frac{5}{8} \cdot \frac{4}{7} \cdot \frac{1}{2}$ 111) _____

A) $\frac{5}{7}$ B) $\frac{5}{28}$ C) $\frac{5}{17}$ D) $\frac{35}{64}$

112) $\frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{4}$ 112) _____

A) $\frac{1}{16}$ B) 1 C) $\frac{1}{2}$ D) $\frac{1}{8}$

113) $\frac{12}{25} \cdot \frac{40}{66} \cdot \frac{15}{32}$ 113) _____

A) $\frac{6}{11}$ B) $\frac{3}{44}$ C) $\frac{3}{22}$ D) $\frac{3}{11}$

114) $\frac{48}{64} \cdot \frac{16}{27} \cdot \frac{45}{24}$ 114) _____

A) $\frac{5}{9}$ B) $\frac{5}{6}$ C) $\frac{5}{24}$ D) $\frac{5}{18}$

Multiply. Write the answer in lowest terms and as a whole or mixed number where possible.

115) $48 \cdot \frac{5}{8}$ 115) _____

A) 25 B) 6 C) 30 D) $8\frac{69}{280}$

116) $10 \cdot \frac{7}{8}$ 116) _____

A) $8\frac{3}{4}$ B) $17\frac{1}{2}$ C) 7 D) $\frac{7}{16}$

117) $60 \cdot \frac{1}{3}$ 117) _____

A) 2 B) $\frac{60}{3}$ C) $\frac{1}{3}$ D) 20

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118) $450 \cdot \frac{2}{5}$ 118) _____

A) 180 B) 160 C) 400 D) 450

119) $\frac{4}{5} \cdot 225$ 119) _____

A) $56\frac{1}{4}$ B) 180 C) 184 D) 225

120) $\frac{2}{7} \cdot 195$ 120) _____

A) $\frac{2}{1365}$ B) 390 C) $\frac{2}{7}$ D) $55\frac{5}{7}$

121) $20 \cdot \frac{3}{10} \cdot \frac{4}{21}$ 121) _____

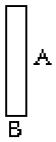
A) $1\frac{1}{7}$ B) $\frac{7}{8}$ C) $\frac{4}{35}$ D) 24

122) $\frac{60}{54} \cdot 270 \cdot \frac{7}{10}$ 122) _____

A) 189 B) $236\frac{1}{4}$ C) 210 D) $212\frac{5}{8}$

Find the area of the rectangle.

123) 123) _____

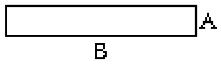


$A = \frac{4}{7}$ foot

$B = \frac{1}{2}$ foot

A) $\frac{2}{7}$ square foot B) $\frac{5}{9}$ square foot C) $\frac{4}{9}$ square foot D) $\frac{4}{14}$ square foot

124) 124) _____

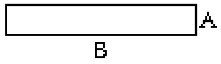


$A = \frac{3}{11}$ in.

$B = 11$ in.

A) $\frac{124}{11}$ in.^{2} B) $\frac{33}{11}$ in.^{2} C) 3 in.^{2} D) $\frac{14}{11}$ in.^{2}

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125) 

125) _____

$A = \frac{4}{18}$ mi

$B = \frac{16}{13}$ mi

A) $\frac{20}{31}$ mi^2 B) $\frac{32}{117}$ mi^2 C) $\frac{6}{11}$ mi^2 D) $\frac{64}{234}$ mi^2

Solve the problem. Write the answer in lowest terms and as a whole or mixed number where possible.

126) Find the area of a rectangular banner having a length of 22 feet and a width of $\frac{7}{8}$ foot. 126) _____

A) $38\frac{1}{2}$ ft^2 B) $19\frac{1}{4}$ ft^2 C) 7 ft^2 D) $\frac{7}{16}$ ft^2

127) Find the area of a rectangular table top having a length of 4 feet and a width of $\frac{5}{2}$ feet. 127) _____

A) 10 ft^2 B) 7 ft^2 C) $\frac{1}{10}$ ft^2 D) $3\frac{1}{2}$ ft^2

128) A rectangular parking lot measures $\frac{3}{14}$ mile by $\frac{2}{13}$ mile. Find the area of the parking lot. 128) _____

A) $\frac{3}{91}$ mi^2 B) $\frac{5}{182}$ mi^2 C) $\frac{2}{91}$ mi^2 D) $\frac{5}{27}$ mi^2

129) Layer Cake A is $\frac{5}{8}$ yard long and $\frac{1}{3}$ yard wide. Layer Cake B is $\frac{5}{8}$ yard long and $\frac{2}{3}$ yard wide. 129) _____

Which cake has the larger area?

A) Layer Cake B B) Layer Cake A

Solve the problem.

130) A rectangular parking lot measures $\frac{3}{10}$ mile by $\frac{2}{9}$ mile. Find the area of the parking lot. 130) _____

A) $\frac{5}{19}$ mi^2 B) $\frac{2}{45}$ mi^2 C) $\frac{1}{15}$ mi^2 D) $\frac{1}{18}$ mi^2

131) Find the area of a rectangular table top having a length of 5 feet and a width of $\frac{11}{4}$ feet. 131) _____

A) 8 ft^2 B) $\frac{4}{55}$ ft^2 C) 4 ft^2 D) $13\frac{3}{4}$ ft^2

132) A rectangular sheet of paper measures $\frac{1}{5}$ foot by $\frac{4}{7}$ foot. Find its area. 132) _____

A) $\frac{5}{12}$ ft^2 B) $\frac{5}{7}$ ft^2 C) $\frac{1}{7}$ ft^2 D) $\frac{4}{35}$ ft^2

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133) A rectangular dog bed is $\frac{4}{7}$ yard by $\frac{2}{5}$ yard. Find its area. 133) _____

A) $\frac{6}{35}$ yd^2 B) $\frac{8}{35}$ yd^2 C) $\frac{1}{2}$ yd^2 D) $\frac{6}{5}$ yd^2

134) A warehouse stores 540 different inventory items, of which $\frac{4}{5}$ are perishable. How many of the inventory items are perishable? 134) _____

A) 428 items B) 438 items C) 270 items D) 432 items

135) Mr. and Mrs. Jones have a home equity loan of $16,800. They have paid off $\frac{7}{24}$ of the loan. How much of the loan have they paid off? 135) _____

A) $4200 B) $5600 C) $700 D) $4900

136) During elections at the local union, $\frac{6}{11}$ of the members voted. If there are 33 members, how many voted? 136) _____

A) 12 members B) 18 members C) 3 members D) 24 members

137) A restaurant has a capacity of 39 patrons. If the restaurant is $\frac{2}{3}$ full, how many patrons are at the restaurant? 137) _____

A) 26 patrons B) 28 patrons C) 24 patrons D) 13 patrons

138) Larry can machine 36 units in 9 hours. How many units can he machine in 6 hours? 138) _____

A) 4 units B) 0 unit(s) C) 216 units D) 24 units

139) Betsy can ride her bike 24 miles in 4 hours. How many miles can she ride in 2 hours? 139) _____

A) 12 miles B) 48 miles C) 3 mile(s) D) 6 miles

140) One fifth of Mary's earned income is deducted from her paycheck for withholdings. Three fourths of the withholdings are for taxes. What fraction of Mary's earned income is deducted for taxes? 140) _____

A) $\frac{1}{5}$ B) $\frac{4}{15}$ C) $\frac{3}{20}$ D) $\frac{4}{9}$

141) One fifth of Joan's earned income is deducted for withholdings. Three tenths of the withholdings are for federal income tax. What fraction of Joan's earned income is deducted for federal income tax? 141) _____

A) $\frac{2}{3}$ B) $\frac{3}{50}$ C) $\frac{2}{25}$ D) $\frac{4}{15}$

142) One fifth of Joe's earned income is deducted for withholdings. One third of the withholdings are for social security (FICA). What fraction of Joe's earned income is deducted for social security? 142) _____

A) $\frac{1}{15}$ B) $\frac{3}{5}$ C) $\frac{1}{4}$ D) $\frac{2}{15}$

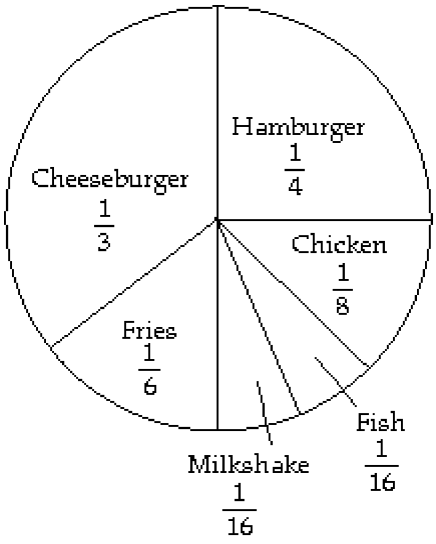
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143) A certain scholarship will pay for $\frac{7}{8}$ of a student's total tuition. How much will a student who receives this scholarship pay toward tuition, if tuition is $960? 143) _____

A) $946 B) $120 C) $900 D) $840

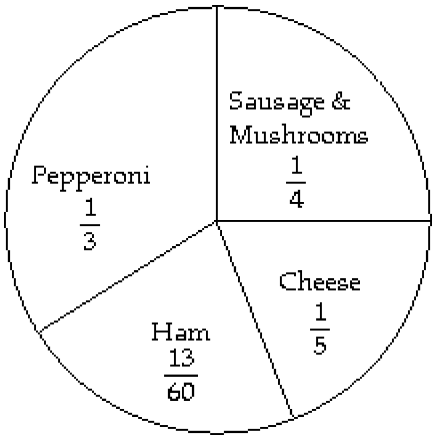
Use the circle graph to answer the question.

144) Last year, one family ate fast food 576 times. The circle graph shows the types of food eaten for the year. Find the number of times hamburger and fries were eaten. 144) _____



A) 240 times B) 288 times C) 336 times D) 180 times

145) On a typical night at Skinny's Pizza, 240 pizzas are ordered. How many pepperoni pizzas are ordered? 145) _____



A) 60 pizzas B) 48 pizzas C) 80 pizzas D) 720 pizzas

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The following table shows the earnings for the Juarez family last year. Use this information to answer the question.

Month	Earnings	Month	Earnings
Jan.	$1400	July	$1300
Feb.	$1150	Aug.	$2450
Mar.	$2950	Sept.	$2500
Apr.	$2300	Oct.	$2000
May	$1650	Nov.	$2350
June	$2700	Dec.	$2400

146) What was the family's total income from January thru June? 146) _____

A) $9,200 B) $12,150 C) $11,000 D) $13,000

147) What was the family's total income for the year? 147) _____

A) $23,750 B) $22,000 C) $24,000 D) $25,150

148) If the family paid $\frac{3}{50}$ of their total income in taxes for the year, how much was paid in taxes? 148) _____

A) $1776 B) $1260 C) $1509 D) $1620

149) If $\frac{1}{100}$ of the family's total income was spent on clothing, how much was spent for clothing last year? 149) _____

A) $240 B) $251.50 C) $270 D) $290

150) The family saved $\frac{9}{50}$ of their total income each month. How much savings did they have at the end of June? 150) _____

A) $1656 B) $2340 C) $2088 D) $2187

151) The family saved $\frac{3}{100}$ of their total income each month. How much savings did they have at the end of the year? 151) _____

A) $810 B) $754.50 C) $630 D) $888

152) The family used $\frac{3}{25}$ of their income for food purchases. How much did they spend on food purchases for the year? 152) _____

A) $3552 B) $3018 C) $2520 D) $3240

153) The family used $\frac{7}{50}$ of their income on rent payments. How much did they spend on rent for the year? 153) _____

A) $3521 B) $3780 C) $2940 D) $4144

154) If $\frac{3}{20}$ of the family income is spent on entertainment, how much did they spend for entertainment last year? 154) _____

A) $4440 B) $4050 C) $3150 D) $3772.50

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155) Other expenses account for $\frac{1}{5}$ of the family income. How much was spent last year on other expenses? 155) _____

A) $4200 B) $4000 C) $5030 D) $5520

Find the reciprocal.

156) $\frac{3}{10}$ 156) _____

A) 10 B) $\frac{3}{10}$ C) $\frac{1}{3}$ D) $\frac{10}{3}$

157) $\frac{1}{14}$ 157) _____

A) No reciprocal B) $\frac{1}{14}$ C) 1 D) 14

158) 9 158) _____

A) 9 B) No reciprocal C) 1 D) $\frac{1}{9}$

159) $\frac{17}{14}$ 159) _____

A) 14 B) $\frac{1}{17}$ C) $\frac{1}{14}$ D) $\frac{14}{17}$

Divide. Write the answer in lowest terms and as a whole or mixed number where possible.

160) $\frac{5}{4} \div \frac{4}{5}$ 160) _____

A) 20 B) $\frac{1}{20}$ C) $1\frac{9}{16}$ D) 1

161) $\frac{1}{6} \div \frac{6}{5}$ 161) _____

A) $7\frac{1}{5}$ B) $\frac{5}{6}$ C) $\frac{1}{6}$ D) $\frac{5}{36}$

162) $\frac{4}{7} \div \frac{5}{7}$ 162) _____

A) $1\frac{1}{4}$ B) $\frac{4}{5}$ C) $2\frac{6}{7}$ D) $\frac{7}{20}$

163) $\frac{1}{7} \div \frac{1}{5}$ 163) _____

A) $\frac{1}{35}$ B) $\frac{5}{7}$ C) 35 D) $1\frac{2}{5}$

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164) $\frac{2}{3} \div \frac{6}{7}$ 164) _____

A) $\frac{4}{7}$ B) $1\frac{2}{7}$ C) $1\frac{3}{4}$ D) $\frac{7}{9}$

165) $\frac{5}{9} \div \frac{7}{2}$ 165) _____

A) $1\frac{17}{18}$ B) $\frac{10}{63}$ C) $\frac{18}{35}$ D) $6\frac{3}{10}$

166) $\frac{5}{3} \div \frac{1}{9}$ 166) _____

A) $\frac{5}{27}$ B) $\frac{1}{15}$ C) $5\frac{2}{5}$ D) 15

167) $\frac{5}{13} \div \frac{15}{91}$ 167) _____

A) $2\frac{1}{3}$ B) $\frac{3}{7}$ C) $11\frac{2}{3}$ D) $\frac{75}{1183}$

168) 168) _____

$$\frac{\frac{1}{4}}{\frac{1}{6}}$$

A) $1\frac{1}{2}$ B) $\frac{3}{14}$ C) $\frac{1}{24}$ D) $\frac{1}{4}$

169) 169) _____

$$\frac{\frac{5}{12}}{\frac{5}{8}}$$

A) $\frac{25}{96}$ B) $1\frac{1}{2}$ C) $\frac{2}{3}$ D) $3\frac{1}{3}$

170) $9 \div \frac{3}{2}$ 170) _____

A) 3 B) 6 C) $\frac{1}{6}$ D) $13\frac{1}{2}$

171) $12 \div \frac{3}{5}$ 171) _____

A) $\frac{1}{20}$ B) 12 C) $7\frac{1}{5}$ D) 20

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172) $24 \div \frac{4}{7}$ 172) _____

A) 42 B) 6 C) $\frac{1}{42}$ D) $13\frac{5}{7}$

173) $2 \div \frac{5}{4}$ 173) _____

A) $\frac{5}{8}$ B) $\frac{1}{10}$ C) $2\frac{1}{2}$ D) $1\frac{3}{5}$

174) $\frac{7}{4} \div 8$ 174) _____

A) $\frac{7}{32}$ B) 14 C) $\frac{1}{32}$ D) $\frac{1}{14}$

175) $\frac{1}{7} \div 5$ 175) _____

A) $\frac{1}{12}$ B) 35 C) $\frac{1}{35}$ D) 7

176) $\frac{32}{3} \div 4$ 176) _____

A) $\frac{3}{8}$ B) $42\frac{2}{3}$ C) 8 D) $2\frac{2}{3}$

177) $\dfrac{24}{\frac{1}{5}}$ 177) _____

A) 120 B) $4\frac{4}{5}$ C) 24 D) $\frac{1}{120}$

178) $\dfrac{8}{\frac{2}{5}}$ 178) _____

A) $\frac{1}{20}$ B) $3\frac{1}{5}$ C) 20 D) 4

179) $\dfrac{\frac{15}{7}}{5}$ 179) _____

A) $10\frac{5}{7}$ B) $2\frac{1}{3}$ C) $\frac{3}{7}$ D) 3

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Solve the problem.

180) A land developer wants to develop 18 acres of land. Each lot in the development is to be $\frac{2}{3}$ of an acre. How many lots will the land developer have in the 18 acres? 180) _____

A) 12 lot(s) B) 27 lots C) 3 lots D) $\frac{1}{3}$ lot

181) A box of cereal contains about 12 cups. A serving size is $\frac{3}{4}$ cup. About how many servings are in the box of cereal? 181) _____

A) 9 servings B) 16 servings C) $3\frac{3}{4}$ servings D) $5\frac{1}{3}$ servings

182) A bag of chips weighs 24 ounces. A serving size is $\frac{3}{4}$ ounce. How many servings are in the bag of chips? 182) _____

A) $9\frac{1}{3}$ servings B) 32 servings C) 18 servings D) $6\frac{3}{4}$ servings

183) A bottle of ketchup has a net weight of 22 ounces. A serving size is $\frac{1}{2}$ ounce. How many servings are in the bottle of ketchup? 183) _____

A) 24 servings B) 11 servings C) 44 servings D) $22\frac{1}{2}$ servings

184) A child's dose of medicine is $\frac{1}{6}$ of a pre-measured dose cup. If the bottle of medicine is the size of 9 dose cups, how many children's doses are there in the bottle? 184) _____

A) $9\frac{1}{6}$ doses B) $1\frac{1}{2}$ dose(s) C) 15 doses D) 54 doses

185) A technician has readings that take $\frac{2}{3}$ minute each to read and record. How many readings can be completed in 30 minutes? 185) _____

A) 10 readings B) 20 readings C) 12 readings D) 45 readings

186) The floor of a rectangular room is to be tiled with $\frac{1}{3}$-foot square tiles along a 9-foot wall. How many tiles will be needed along the wall? 186) _____

A) 27 tiles B) 3 tiles C) 28 tiles D) $9\frac{1}{3}$ tiles

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187) A piece of cheese weighing $\frac{2}{9}$ pound is to be divided into 10 equal portions. What will be the weigh 187) _____

of each portion?

A) $2\frac{2}{9}$ pound(s) B) $\frac{5}{9}$ pound(s) C) 45 pounds D) $\frac{1}{45}$ pound

188) A piece of cable which is $\frac{4}{5}$ m long is to be cut into pieces $\frac{1}{20}$ m long. How many pieces will there b 188) _____

A) 80 pieces B) 100 pieces C) $\frac{1}{16}$ piece D) 16 pieces

189) The recipe for a chocolate chip cake calls for $\frac{3}{4}$ pound of chocolate chips. If a bakery wants to make 189) _____

32 cakes, how many pounds of chocolate chips will they need?

A) 24 pounds B) $10\frac{2}{3}$ pounds C) 8 pounds D) 21 pounds

190) An upholsterer wants to reupholster 280 chairs for a banquet hall. If each chair needs $\frac{1}{7}$ pound of 190) _____

brass tacks, how many pounds of brass tacks are needed?

A) 1960 pounds B) 40 pounds C) 196 pounds D) 4 pounds

191) A mechanic uses on average $\frac{5}{3}$ gallon(s) of gear lube to service each tractor differential. Find the 191) _____

number of tractors that can be serviced with 30 gallons of gear lube.

A) 150 tractors B) 50 tractors C) 18 tractors D) 6 tractors

192) A building contractor finds that $\frac{1}{7}$ can of pipe joint compound is needed to plumb each new home. 192) _____

How many homes can be plumbed with 6 cans of compound?

A) $\frac{6}{7}$ homes B) 6 homes C) $10\frac{1}{2}$ homes D) 42 homes

193) Jim has traveled $\frac{7}{8}$ of his total trip. If the trip is a total of 960 miles, how many miles has he gone? 193) _____

A) 105 miles B) 120 miles C) 420 miles D) 840 miles

194) Susan has been working on a job that will require 54 hours to complete. If she has completed $\frac{8}{9}$ of 194) _____

the job, how many hours has she worked?

A) 24 hours B) 6 hours C) $5\frac{1}{3}$ hours D) 48 hours

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195) A scarf manufacturer requires $\frac{3}{5}$ yard of fabric for each scarf produced. Find the number of scarves that can be made from 873 yards of fabric. 195) _____

A) 524 scarves B) 2183 scarves C) 1455 scarves D) 349 scarves

196) Each patient will receive $\frac{9}{10}$ vial of medication. How many patients can be treated with 5850 vials of medication? 196) _____

A) 9530 patients B) 6500 patients C) 5265 patients D) 650 patients

Multiply to find the exact answer. Express the answer as a whole or mixed number when possible and simplify.

197) $4\frac{4}{7} \cdot 15\frac{3}{4}$ 197) _____

A) $60\frac{12}{28}$ B) 73 C) 72 D) 67

198) $3\frac{3}{5} \cdot 2\frac{1}{2}$ 198) _____

A) 9 B) 10 C) $6\frac{14}{10}$ D) 14

199) $5\frac{1}{7} \cdot 1\frac{5}{9}$ 199) _____

A) 7 B) 5 C) 8 D) 3

200) $3\frac{5}{6} \cdot 6$ 200) _____

A) 108 B) 23 C) 18 D) $9\frac{5}{6}$

201) $4 \cdot 6\frac{11}{18}$ 201) _____

A) $10\frac{4}{9}$ B) $26\frac{4}{9}$ C) $26\frac{6}{9}$ D) $24\frac{11}{18}$

202) $2 \cdot 4\frac{11}{18}$ 202) _____

A) $8\frac{11}{18}$ B) $8\frac{2}{9}$ C) $9\frac{2}{9}$ D) 8

203) $2\frac{2}{5} \cdot \frac{2}{9}$ 203) _____

A) $2\frac{8}{15}$ B) $2\frac{4}{45}$ C) $\frac{8}{15}$ D) $\frac{6}{15}$

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204) $1\frac{1}{4} \cdot \frac{1}{7} \cdot \frac{4}{5}$ 204) _____

A) $\frac{1}{7}$ B) $\frac{2}{7}$ C) $\frac{2}{5}$ D) $\frac{1}{35}$

205) $4 \cdot 3\frac{4}{7} \cdot \frac{1}{5}$ 205) _____

A) $1\frac{6}{7}$ B) $2\frac{6}{7}$ C) $2\frac{5}{7}$ D) $6\frac{2}{7}$

206) $3\frac{2}{9} \cdot 3 \cdot \frac{3}{8}$ 206) _____

A) $9\frac{16}{27}$ B) $6\frac{5}{8}$ C) $9\frac{5}{8}$ D) $3\frac{5}{8}$

Divide to find the exact answer. Express the answer as a whole or mixed number when possible and simplify.

207) $4\frac{6}{7} \div 3\frac{1}{9}$ 207) _____

A) $1\frac{56}{98}$ B) $1\frac{55}{98}$ C) $2\frac{55}{98}$ D) $1\frac{55}{97}$

208) $3\frac{6}{7} \div 1\frac{1}{3}$ 208) _____

A) $2\frac{25}{28}$ B) $2\frac{25}{27}$ C) $3\frac{25}{28}$ D) $2\frac{26}{28}$

209) $3\frac{4}{9} \div 1\frac{4}{5}$ 209) _____

A) $1\frac{74}{81}$ B) $2\frac{74}{81}$ C) $1\frac{74}{80}$ D) $1\frac{75}{81}$

210) $5\frac{3}{5} \div 2\frac{4}{7}$ 210) _____

A) $2\frac{8}{45}$ B) $3\frac{8}{45}$ C) $2\frac{8}{44}$ D) $2\frac{9}{45}$

211) $13 \div 4\frac{1}{3}$ 211) _____

A) 4 B) 3 C) $1\frac{1}{2}$ D) 2

212) $2\frac{6}{7} \div 10$ 212) _____

A) $\frac{1}{7}$ B) $\frac{3}{7}$ C) $\frac{2}{6}$ D) $\frac{2}{7}$

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213) $4\frac{4}{9} \div \frac{2}{9}$ 213) _____

A) $18\frac{1}{2}$ B) 21 C) 20 D) 19

Refer to the following recipe to first estimate the answer and then use multiplication or division to find the exact answer. S

Old Grandma's Fork Cookies

$1\frac{1}{2}$ cups brown sugar

$1\frac{1}{2}$ cups white sugar

$1\frac{1}{4}$ cups shortening

1 pinch salt

3 eggs

$2\frac{1}{2}$ tsp soda

$2\frac{1}{4}$ tsp cream of tartar

$1\frac{1}{2}$ tsp vanilla

Cream sugars and shortening. Beat in remaining ingredients. Add flour to stiffen like regular cookie dough. Roll into balls flatten with a fork. Cook until brown.

214) If the recipe is tripled, how much soda will be needed? 214) _____

A) Estimate: $7\frac{1}{2}$ tsp
Exact: 9 tsp

B) Estimate: 6 tsp
Exact: $6\frac{3}{4}$ tsp

C) Estimate: 9 tbsp
Exact: $7\frac{1}{2}$ tbsp

D) Estimate: 9 tsp
Exact: $7\frac{1}{2}$ tsp

215) Find the amount of vanilla needed if the recipe is halved. 215) _____

A) Estimate: 2 tsp
Exact: 3 tsp

B) Estimate: 1 tsp
Exact: $\frac{3}{4}$ tsp

C) Estimate: $\frac{1}{2}$ tsp
Exact: $1\frac{1}{2}$ tsp

D) Estimate: $\frac{3}{4}$ tsp
Exact: 1 tsp

216) Find the amount of white sugar needed if you take $2\frac{1}{2}$ times the recipe. 216) _____

A) Estimate: 4 cups
Exact: $3\frac{3}{4}$ cups

B) Estimate: 6 cups
Exact: $3\frac{3}{4}$ cups

C) Estimate: $3\frac{3}{4}$ cups
Exact: 5 cups

D) Estimate: 3 cups
Exact: 3 cups

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217) Find the amount of cream of tartar needed if you take $1\frac{1}{2}$ times the recipe. 217) _____

A) Estimate: 4 tsp
Exact: $3\frac{3}{4}$ tsp

B) Estimate: 6 tsp
Exact: $3\frac{3}{8}$ tsp

C) Estimate: 4 tsp
Exact: $3\frac{3}{8}$ tsp

D) Estimate: $3\frac{3}{4}$ tsp
Exact: 6 tsp

Solve the problem.

218) A small company sells stock for $8\frac{3}{8}$ dollars per share. How much will 320 shares cost? 218) _____

A) 2680 dollars B) 323 dollars C) $38\frac{14}{67}$ dollars D) 320 dollars

219) Tim needs to apply $3\frac{1}{4}$ gallons of herbicide per acre of soybeans. How many gallons of herbicide are needed for 300 acres? 219) _____

A) 975 gallons B) $92\frac{4}{13}$ gallons C) 226 gallons D) $225\frac{1}{4}$ gallons

220) On a certain map, 1 inch equals 20 miles. How many miles are in $2\frac{3}{4}$ inches? 220) _____

A) $7\frac{3}{11}$ miles B) 13 miles C) 55 miles D) $10\frac{3}{4}$ miles

221) A technician has readings that take $2\frac{1}{3}$ minutes each to read and record. How many readings can be completed in 147 minutes? 221) _____

A) 99 readings B) 8 readings C) 343 readings D) 63 readings

222) The floor of a rectangular room is to be tiled with $\frac{1}{3}$ foot square tiles along a $12\frac{1}{4}$ foot wall. How many tiles will be needed along the wall? 222) _____

A) $36\frac{1}{4}$ tiles B) $36\frac{3}{4}$ tiles C) 38 tiles D) $4\frac{1}{12}$ tiles

223) Stock in a company is selling for $\$6\frac{1}{2}$ per share. If someone purchased \$1482 worth of stock in this company, how many shares did they get? 223) _____

A) $183\frac{1}{4}$ shares B) 5928 shares C) 1482 shares D) 228 shares

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224) It requires $2\frac{1}{2}$ cups of concentrate per quart of water to make a certain juice. How many cups are needed to make $14\frac{1}{2}$ quarts of juice? 224) _____

A) 145 cups B) $72\frac{1}{2}$ cups C) $36\frac{1}{4}$ cups D) $5\frac{4}{5}$ cups

225) A car traveled 264 miles on $9\frac{7}{9}$ gallons of gas. How many miles per gallon did it get? 225) _____

A) $29\frac{1}{3}$ mpg B) 27 mpg C) $29\frac{2}{9}$ D) 28 mpg

Provide an appropriate response.

226) When the numerator is the same as the denominator, for example $\frac{10}{10}$, the fraction is called a(n) _____ fraction. 226) _____

A) whole B) uncommon C) proper D) improper

227) A proper fraction has the form $\frac{x}{17}$. What is the largest possible number that x can be? 227) _____

A) 18 B) 16 C) 8.5 D) 17

228) You are asked to change $10\frac{8}{11}$ to an improper fraction. What should be your first step? 228) _____

A) Multiply 11 and 10. B) Multiply 8 and 10.
C) Divide 8 by 11. D) Add 10 and 8.

229) You are asked to change $\frac{23}{22}$ to a mixed number. What should be your first step? 229) _____

A) Add 23 and 22. B) Divide 22 by 23.
C) Multiply 23 and 22. D) Divide 23 by 22.

230) A prime number has exactly ____ factor(s). 230) _____

A) 1 B) 3 C) 2 D) 0

231) The only consecutive whole numbers that are both prime numbers are ____ and ____. 231) _____

A) 1 and 2 B) 6 and 7 C) 0 and 1 D) 2 and 3

232) One way to determine if two fractions are equivalent is to use _____. 232) _____

A) common factors B) the method of prime factors
C) simplification D) equivalent terms

233) Multiply two fractions by _____ the numerators and _____ the denominators. 233) _____

A) multiplying; canceling B) multiplying; adding
C) multiplying; multiplying D) adding; multiplying

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234) Fill in the blank with "always greater than," "sometimes greater than," "always less than," or "cannot be determined," whichever response is correct. When dividing a positive fraction by $\frac{1}{7}$, the answer is _____ the fraction. 234) _____

A) sometimes greater than
B) always less than
C) cannot be determined
D) always greater than

235) Finish the statement with a correct response. To divide two fractions one needs to: 235) _____

A) Add the numerators and multiply the denominators.
B) Use the reciprocal of the second fraction (divisor), add the numerators and multiply the denominators.
C) Add the numerators and factor the denominators.
D) Use the reciprocal of the second fraction (divisor) and multiply.

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1) C
2) B
3) C
4) A
5) A
6) D
7) B
8) C
9) D
10) A
11) B
12) D
13) C
14) B
15) C
16) D
17) C
18) C
19) B
20) D
21) B
22) A
23) C
24) D
25) B
26) A
27) D
28) B
29) D
30) B
31) D
32) A
33) B
34) B
35) A
36) B
37) A
38) B
39) A
40) B
41) A
42) B
43) B
44) B
45) A
46) A
47) A
48) C
49) D
50) D

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51) D
52) A
53) A
54) B
55) D
56) C
57) C
58) C
59) B
60) A
61) B
62) A
63) B
64) A
65) B
66) C
67) D
68) D
69) A
70) C
71) A
72) D
73) B
74) D
75) A
76) A
77) C
78) C
79) C
80) C
81) A
82) B
83) A
84) D
85) C
86) C
87) D
88) D
89) D
90) A
91) C
92) D
93) B
94) D
95) A
96) B
97) C
98) C
99) C
100) A

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101) B
102) B
103) A
104) A
105) B
106) A
107) C
108) D
109) B
110) A
111) B
112) A
113) C
114) B
115) C
116) A
117) D
118) A
119) B
120) D
121) A
122) C
123) A
124) C
125) B
126) B
127) A
128) A
129) A
130) C
131) D
132) D
133) B
134) D
135) D
136) B
137) A
138) D
139) A
140) C
141) B
142) A
143) B
144) A
145) C
146) B
147) D
148) C
149) B
150) D

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151) B
152) B
153) A
154) D
155) C
156) D
157) D
158) D
159) D
160) C
161) D
162) B
163) B
164) D
165) B
166) D
167) A
168) A
169) C
170) B
171) D
172) A
173) D
174) A
175) C
176) D
177) A
178) C
179) C
180) B
181) B
182) B
183) C
184) D
185) D
186) A
187) D
188) D
189) A
190) B
191) C
192) D
193) D
194) D
195) C
196) B
197) C
198) A
199) C
200) B

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201) B
202) C
203) C
204) A
205) B
206) D
207) B
208) A
209) A
210) A
211) B
212) D
213) C
214) D
215) B
216) B
217) C
218) A
219) A
220) C
221) D
222) B
223) D
224) C
225) B
226) D
227) B
228) A
229) D
230) C
231) D
232) B
233) C
234) D
235) D

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