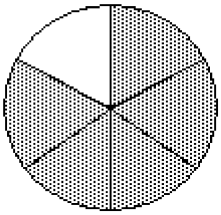
Exam

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.**

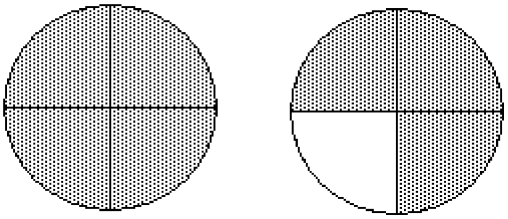
1) 1) _____



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

Answer: A

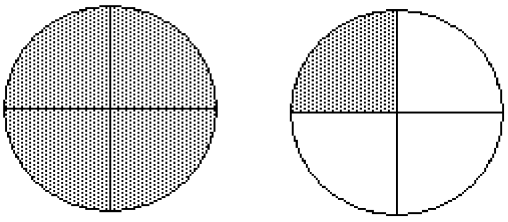
2) 2) _____



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

Answer: D

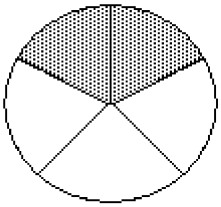
3) 3) _____



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

Answer: B

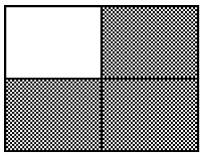
4) 4) _____



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

Answer: C

5) 5) _____



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

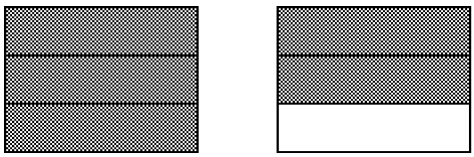
Answer: D

6) 6) _____

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

Answer: D

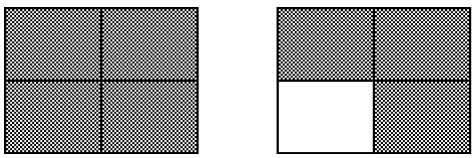
7) 7) _____



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

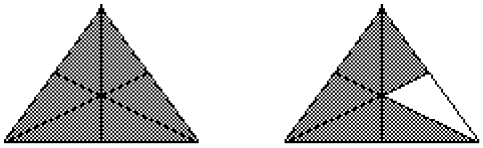
Answer: C

8) 8) _____



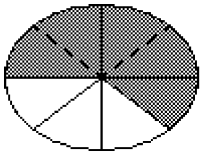
A) $\frac{7}{8}, \frac{1}{8}$ B) $\frac{7}{1}, \frac{1}{4}$ C) $\frac{1}{7}, \frac{4}{1}$ D) $\frac{7}{4}, \frac{1}{4}$

Answer: D

9)  9) _____

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

Answer: D

10)  10) _____

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

Answer: A

**Solve the problem.**

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

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

Answer: D

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

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

Answer: C

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) $\frac{10}{3}$

Answer: C

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

Answer: A

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

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

Answer: C

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

Answer: B

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

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

Answer: C

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

Answer: D

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

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

Answer: D

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

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

Answer: B

**Identify the numerator and denominator.**

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

A) Numerator 5
Denominator 3

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

C) Numerator 3
Denominator 5

D) Numerator 8
Denominator 1

Answer: A

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

A) Numerator 23
Denominator 13

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

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

D) Numerator 13
Denominator 23

Answer: D

**List the proper fractions in the group.**

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

A) $\frac{9}{7}, \frac{5}{12}, \frac{7}{15}, \frac{3}{17}$ B) $\frac{5}{12}, \frac{7}{15}, \frac{3}{17}$ C) $\frac{9}{7}$ D) $\frac{9}{7}, \frac{13}{17}$

Answer: B

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

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

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

Answer: C

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

A) $\frac{14}{13}, \frac{7}{2}, \frac{11}{4}$ B) $\frac{7}{12}, \frac{11}{4}, \frac{3}{4}$ C) $\frac{7}{2}, \frac{11}{4}, \frac{3}{4}$ D) $\frac{7}{12}, \frac{3}{4}$

Answer: D

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

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

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

Answer: D

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

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

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

Answer: D

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

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

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

Answer: A

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

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

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

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

Answer: D

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

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

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

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

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

Answer: A

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

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

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

Answer: B

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

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

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

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

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

Answer: C

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

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

Answer: B

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

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

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

Answer: C

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

Answer: D

**Write the mixed number as an improper fraction.**

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

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

Answer: B

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

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

Answer: C

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

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

Answer: B

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

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

Answer: B

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

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

Answer: B

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

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

Answer: B

**Write the improper fraction as a whole or mixed number.**

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

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

Answer: D

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

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

Answer: B

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

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

Answer: B

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

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

Answer: C

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

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

Answer: D

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

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

Answer: D

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

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

Answer: A

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

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

Answer: A

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

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

Answer: A

**Find all the factors for the number.**

51) 30 51) _____

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

Answer: D

52) 28 52) _____

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

Answer: B

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) 2, 4, 6, 12, 18, 36
D) 1, 2, 4, 6, 12, 18, 36

Answer: A

54) 45 54) _____

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

Answer: C

55) 56 55) _____

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

Answer: C

56) 63 56) _____

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

Answer: A

57) 66 57) _____

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

Answer: C

58) 70 58) _____

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

Answer: C

59) 72 59) _____

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

Answer: B

60) 84 60) _____

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

Answer: B

**Decide whether the number is prime or composite.**

61) 42 61) _____

A) Prime
B) Composite

Answer: B

62) 73 62) _____

A) Prime
B) Composite

Answer: A

63) 54 63) _____

A) Prime
B) Composite

Answer: B

64) 11 64) _____

A) Prime
B) Composite

Answer: A

65) 10 65) _____

A) Prime
B) Composite

Answer: B

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

66) 175 66) _____

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

Answer: D

67) 217 67) _____

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

Answer: A

68) 40 68) _____

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

Answer: D

69) 144 69) _____

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

Answer: B

70) 42 70) _____

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

Answer: A

71) 90 71) _____

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

Answer: D

72) 252 72) _____

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

Answer: C

73) 2600 73) _____

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

Answer: A

74) 2600 74) _____

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

Answer: C

75) 3960 75) _____

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

Answer: C

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

Answer: C

77) 3800 77) _____

A) 2, 4, 5, 8 B) 2, 4, 5 C) 2, 5, 8, 10 D) 2, 5, 4, 8, 10

Answer: D

78) 23 78) _____

A) 3 B) 3, 5 C) 3, 7 D) None

Answer: D

79) 209 79) _____

A) 3, 5 B) None C) 3 D) 3, 7

Answer: B

80) 80,401 80) _____

A) 3 B) None C) 3, 5 D) 3, 7

Answer: B

81) 7138 81) _____

A) 2 B) 2, 3, 4 C) 4 D) 3, 4

Answer: A

82) 4602 82) _____

A) 2, 3, 6 B) 3, 4, 6 C) 4, 5, 6 D) 2, 3, 4

Answer: A

83) 2035 83) _____

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

Answer: B

84) 9417 84) _____

A) 2, 3, 9 B) 3, 9 C) 9 D) 3

Answer: D

85) 51,620 85) _____

A) 2, 5 B) 2, 4, 5, 10 C) 4, 5, 10 D) 4, 5

Answer: B

**Write the fraction in lowest terms.**

86) $\frac{3}{9}$ 86) _____

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

Answer: D

87) $\frac{8}{28}$ 87) _____

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

Answer: C

88) $\frac{20}{28}$ 88) _____

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

Answer: C

89) $\frac{105}{135}$ 89) _____

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

Answer: A

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

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

Answer: B

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

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

Answer: D

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

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

Answer: A

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

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

Answer: A

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

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

Answer: C

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

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

Answer: D

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

Answer: C

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

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

Answer: A

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) $\frac{2 \cdot 2 \cdot 3 \cdot 3}{2 \cdot 2 \cdot 5 \cdot 7} = \frac{9}{35}$

Answer: C

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

A) $\frac{2 \cdot 3 \cdot 3 \cdot 7}{13} = \frac{54}{13}$ B) $\frac{2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 3 \cdot 7}{2 \cdot 2 \cdot 7 \cdot 13} = \frac{1512}{364}$

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

Answer: C

**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

Answer: A

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

A) Equivalent B) Not equivalent

Answer: B

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

A) Equivalent B) Not equivalent

Answer: B

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

A) Equivalent B) Not equivalent

Answer: A

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

A) Equivalent B) Not equivalent

Answer: A

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

A) Equivalent B) Not Equivalent

Answer: B

**Multiply. Write the answer in lowest terms.**

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

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

Answer: C

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

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

Answer: A

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

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

Answer: B

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

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

Answer: D

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

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

Answer: D

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

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

Answer: C

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

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

Answer: C

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

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

Answer: A

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

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

Answer: B

**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) $8\frac{69}{280}$

Answer: C

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

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

Answer: D

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

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

Answer: D

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

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

Answer: D

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

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

Answer: C

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

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

Answer: C

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

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

Answer: B

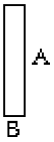
122) $\frac{60}{54} \cdot 270 \cdot \frac{7}{10}$ 122) _____

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

Answer: D

**Find the area of the rectangle.**

123) 123) _____



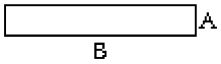

$A = \frac{4}{7}$ foot

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

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

Answer: C

124) 124) _____



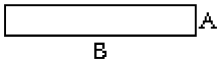

$A = \frac{3}{11}$ in.

B = 11 in.

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

Answer: B

125) 125) _____




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

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

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

Answer: D

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

Answer: C

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) $3\frac{1}{2}$ ft$^2$ D) $\frac{1}{10}$ ft$^2$

Answer: A

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

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

Answer: C

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

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

Answer: A

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

Answer: C

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

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

Answer: B

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

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

Answer: C

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

inventory items are perishable?

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

Answer: D

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

much of the loan have they paid off?

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

Answer: B

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

voted?

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

Answer: B

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

restaurant?

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

Answer: B

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

Answer: D

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

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

Answer: D

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) $\frac{3}{20}$ C) $\frac{4}{15}$ D) $\frac{4}{9}$

Answer: B

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

Answer: B

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

Answer: B

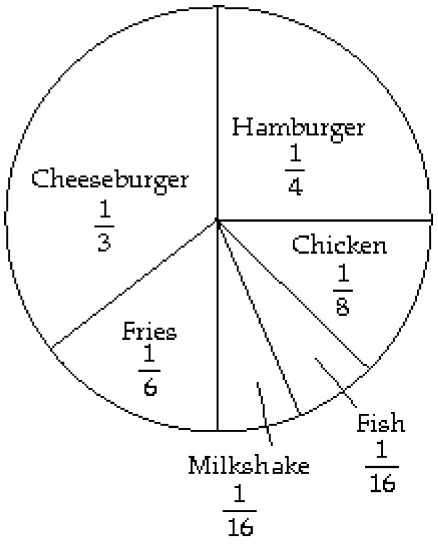
143) A certain scholarship will pay for $\frac{7}{8}$ of a student's total tuition. How much will a student who receives this scholarship pay toward tuition, if tuition is $960? 143) _____

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

Answer: C

**Use the circle graph to answer the question.**

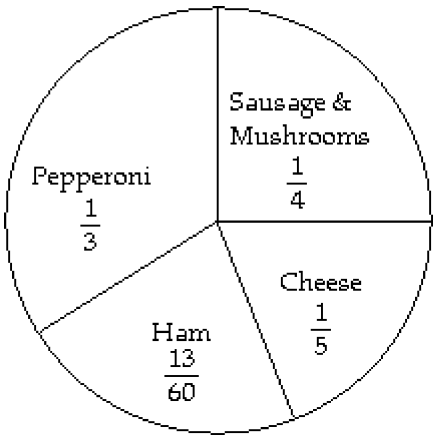
144) Last year, one family ate fast food 576 times. The circle graph shows the types of food eaten for the year. Find the number of times hamburger and fries were eaten. 144) _____




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

Answer: B

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




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

Answer: C

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

Answer: C

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

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

Answer: D

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

Answer: A

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) $270 C) $290 D) $251.50

Answer: D

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) $2187 C) $2088 D) $2340

Answer: B

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

Answer: D

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

Answer: A

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) $4144 C) $3780 D) $2940

Answer: A

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

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

Answer: B

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

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

Answer: B

**Find the reciprocal.**

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

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

Answer: B

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

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

Answer: B

158) 9 158) _____

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

Answer: B

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

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

Answer: B

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

Answer: A

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

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

Answer: A

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

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

Answer: D

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

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

Answer: B

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

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

Answer: C

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

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

Answer: C

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

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

Answer: A

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

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

Answer: A

168) $\dfrac{\frac{1}{4}}{\frac{1}{6}}$ 168) _____

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

Answer: D

169) $\dfrac{\frac{5}{12}}{\frac{5}{8}}$ 169) _____

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

Answer: A

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

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

Answer: A

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

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

Answer: B

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

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

Answer: B

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

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

Answer: A

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

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

Answer: D

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

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

Answer: B

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

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

Answer: A

177) 177) _____

$$\frac{\frac{24}{1}}{\frac{1}{5}}$$

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

Answer: B

178) 178) _____

$$\frac{\frac{8}{2}}{\frac{2}{5}}$$

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

Answer: A

179) 179) _____

$$\frac{\frac{15}{7}}{5}$$

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

Answer: D

**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) $\frac{1}{3}$ lot D) 3 lots

Answer: B

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

Answer: C

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

Answer: A

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

Answer: B

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

Answer: B

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

Answer: B

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

Answer: C

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

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

Answer: D

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 be 188) _____

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

Answer: D

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

Answer: C

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

Answer: D

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) 6 tractors C) 50 tractors D) 18 tractors

Answer: D

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

Answer: C

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) 840 miles D) 420 miles

Answer: C

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

Answer: C

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

Answer: A

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

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

Answer: B

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

Answer: D

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

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

Answer: C

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

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

Answer: B

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

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

Answer: A

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

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

Answer: B

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

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

Answer: D

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

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

Answer: A

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

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

Answer: C

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

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

Answer: C

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

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

Answer: A

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

Answer: B

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

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

Answer: C

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

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

Answer: B

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

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

Answer: C

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

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

Answer: A

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

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

Answer: B

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

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

Answer: D

**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: 9 tsp
Exact: $7\frac{1}{2}$ tsp

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

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

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

Answer: A

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

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

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

C) Estimate: 2 tsp
Exact: 3 tsp

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

Answer: A

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

A) Estimate: 3 cups
Exact: 3 cups

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

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

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

Answer: D

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: $3\frac{3}{4}$ tsp
Exact: 6 tsp

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

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

Answer: C

**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) 320 dollars C) 323 dollars D) $38\frac{14}{67}$ dollars

Answer: A

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

Answer: C

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

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

Answer: D

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

Answer: C

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

Answer: A

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

Answer: C

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

Answer: B

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

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

Answer: A

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

Answer: D

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

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

Answer: D

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

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

Answer: D

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

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

Answer: D

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

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

Answer: A

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

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

Answer: B

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

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

Answer: B

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

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

Answer: D

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

Answer: A

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

Answer: D