

**TEST BANK**

SECOND EDITION



**DEVELOPMENTAL  
MATHEMATICS**

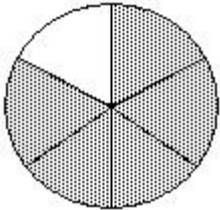
Basic Mathematics  
and Algebra

LIAL  
HORNSBY  
MCGINNIS  
SALZMAN  
HESTWOOD

**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)



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

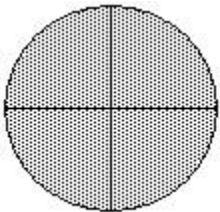
B)  $\frac{1}{6}, \frac{5}{6}$

C)  $\frac{5}{6}, \frac{1}{6}$

D)  $\frac{5}{1}, \frac{5}{4}$

1) \_\_\_\_\_

2)



A)  $\frac{7}{8}, \frac{1}{8}$

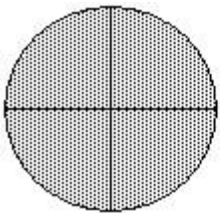
B)  $\frac{3}{4}, \frac{1}{4}$

C)  $\frac{7}{4}, \frac{1}{4}$

D)  $\frac{1}{7}, \frac{6}{7}$

2) \_\_\_\_\_

3)



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

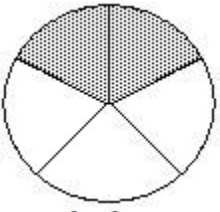
B)  $\frac{5}{8}, \frac{3}{8}$

C)  $\frac{5}{4}, \frac{3}{4}$

D)  $\frac{3}{5}, \frac{5}{5}$

3) \_\_\_\_\_

4)



A)  $\frac{2}{5}, \frac{3}{5}$

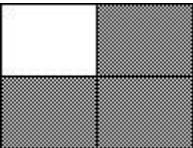
B)  $\frac{3}{2}, \frac{1}{2}$

C)  $\frac{2}{3}, \frac{1}{3}$

D)  $\frac{5}{2}, \frac{5}{3}$

4) \_\_\_\_\_

5)



A)

5) \_\_\_\_\_

$$\frac{3}{4} \frac{1}{4}$$

B)  $\frac{1}{3}$ ,  $\frac{2}{3}$

C)  $\frac{3}{1}$ ,  $\frac{3}{2}$

D)  $\frac{1}{4}$ ,  $\frac{3}{4}$

6)



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

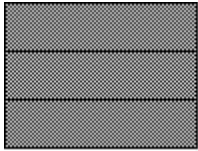
B)  $\frac{5}{3}$ ,  $\frac{5}{2}$

C)  $\frac{3}{5}$ ,  $\frac{2}{5}$

D)  $\frac{5}{8}$ ,  $\frac{3}{8}$

6) \_\_\_\_\_

7)



A)  $\frac{5}{6}$ ,  $\frac{1}{6}$

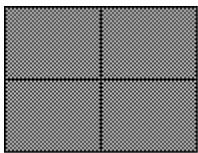
B)  $\frac{5}{3}$ ,  $\frac{1}{3}$

C)  $\frac{1}{5}$ ,  $\frac{1}{1}$

D)  $\frac{5}{1}$ ,  $\frac{1}{1}$

7) \_\_\_\_\_

8)



A)  $\frac{7}{8}$ ,  $\frac{1}{8}$

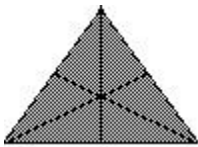
B)  $\frac{7}{4}$ ,  $\frac{1}{4}$

C)  $\frac{7}{1}$ ,  $\frac{1}{4}$

D)  $\frac{1}{7}$ ,  $\frac{4}{1}$

8) \_\_\_\_\_

9)



A)  $\frac{11}{6}$ ,  $\frac{1}{6}$

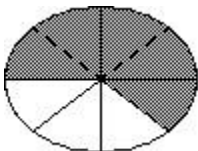
B)  $\frac{11}{1}$ ,  $\frac{1}{12}$

C)  $\frac{11}{12}$ ,  $\frac{1}{12}$

D)  $\frac{1}{11}$ ,  $\frac{12}{1}$

9) \_\_\_\_\_

10)



A)  $\frac{3}{5}$ ,  $\frac{2}{5}$

B)  $\frac{5}{8}$ ,  $\frac{3}{8}$

C)  $\frac{3}{8}$ ,  $\frac{5}{8}$

D)  $\frac{5}{3}$ ,  $\frac{1}{3}$

10) \_\_\_\_\_

**Solve the problem.**

11) Of 13 crates of apples, 6 crates are Granny Smiths. What fraction of the crates are Granny Smiths?

A)  $\frac{7}{13}$

B)  $\frac{13}{6}$

C)  $\frac{13}{7}$

D)  $\frac{6}{13}$

11) \_\_\_\_\_

- 12) Of 19 crates of apples, 7 crates are Granny Smiths. What fraction of the crates are not Granny Smiths? 12) \_\_\_\_\_  
 A)  $\frac{12}{19}$                   B)  $\frac{19}{12}$                   C)  $\frac{7}{19}$                   D)  $\frac{19}{7}$
- 13) A high school basketball team has 8 members. If 5 of the team members are juniors, find the fraction of the team members that are juniors. 13) \_\_\_\_\_  
 A)  $\frac{5}{8}$                   B)  $\frac{8}{5}$                   C)  $\frac{3}{8}$                   D)  $\frac{8}{3}$
- 14) A high school basketball team has 12 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)  $\frac{7}{12}$                   B)  $\frac{5}{12}$                   C)  $\frac{12}{7}$                   D)  $\frac{12}{5}$
- 15) In a microbiology class of 43 students, 22 students are graduate students. What fraction of the students are graduate students? 15) \_\_\_\_\_  
 A)  $\frac{43}{22}$                   B)  $\frac{43}{21}$                   C)  $\frac{22}{43}$                   D)  $\frac{21}{43}$
- 16) In a microbiology class of 29 students, 18 students are graduate students. What fraction of the students are not graduate students? 16) \_\_\_\_\_  
 A)  $\frac{18}{29}$                   B)  $\frac{11}{29}$                   C)  $\frac{29}{18}$                   D)  $\frac{29}{11}$
- 17) Of 104 bicycles in a bike rack, 61 are mountain bikes. What fraction of the bicycles are mountain bikes? 17) \_\_\_\_\_  
 A)  $\frac{104}{61}$                   B)  $\frac{43}{104}$                   C)  $\frac{61}{104}$                   D)  $\frac{104}{43}$
- 18) Of 90 bicycles in a bike rack, 37 are mountain bikes. What fraction of the bicycles are not mountain bikes? 18) \_\_\_\_\_  
 A)  $\frac{90}{37}$                   B)  $\frac{37}{90}$                   C)  $\frac{53}{90}$                   D)  $\frac{90}{53}$
- 19) Of 198 trees in the park, 47 are coniferous trees. What fraction of the trees are coniferous trees? 19) \_\_\_\_\_  
 A)  $\frac{198}{151}$                   B)  $\frac{198}{47}$                   C)  $\frac{151}{198}$                   D)  $\frac{47}{198}$
- 20) Of 176 trees in the park, 37 are coniferous trees. What fraction of the trees are not coniferous trees? 20) \_\_\_\_\_  
 A)  $\frac{176}{37}$                   B)  $\frac{139}{176}$                   C)  $\frac{37}{176}$                   D)  $\frac{176}{139}$

**Identify the numerator and denominator.**

- 21)  $\frac{5}{9}$  21) \_\_\_\_\_  
 A)                                  N

$\frac{9}{5}$   
 Numerator  
 Denominator  
 5

B) N  
 u  
 m  
 e  
 r  
 a  
 t  
 o  
 r  
 14

D  
 e  
 n  
 o  
 m  
 i  
 n  
 a  
 t  
 o  
 r  
 1

C) Numerator 5  
 Denominator 9

D) Numerator 9  
 Denominator 5

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

22) \_\_\_\_\_

A) Numerator 1

B) Numerator 23

Denominator  $\frac{23}{13}$

Denominator 13

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

D) Numerator 13  
 Denominator 23

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)  $\frac{9}{7}$

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

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

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)  $\frac{1}{4}$

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

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

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

C)

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

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

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

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

26) \_\_\_\_\_

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

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

27) \_\_\_\_\_

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

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

28) \_\_\_\_\_

List the improper fractions in the group.

29)  $\frac{18}{3}, \frac{3}{46}, \frac{4}{8}, \frac{33}{23}, \frac{33}{33}$   
 A)  $\frac{18}{3}, \frac{3}{46}, \frac{4}{8}, \frac{33}{23}, \frac{33}{33}$   
 C)  $\frac{3}{46}, \frac{4}{8}$

B)  $\frac{18}{3}, \frac{3}{46}, \frac{4}{8}, \frac{33}{33}$   
 D)  $\frac{18}{3}, \frac{33}{23}, \frac{33}{33}$

29) \_\_\_\_\_

30)  $\frac{61}{5}, \frac{7}{14}, \frac{3}{6}, \frac{42}{23}, \frac{18}{18}$   
 A)  $\frac{61}{5}, \frac{42}{23}, \frac{18}{18}$   
 C)  $\frac{61}{5}, \frac{7}{14}, \frac{3}{6}, \frac{42}{23}, \frac{18}{18}$

B)  $\frac{61}{5}, \frac{7}{14}, \frac{3}{6}, \frac{18}{18}$   
 D)  $\frac{7}{14}, \frac{3}{6}$

30) \_\_\_\_\_

31)  $\frac{42}{2}, \frac{8}{27}, \frac{2}{6}, \frac{32}{29}, \frac{18}{18}$   
 A)  $\frac{42}{2}, \frac{8}{27}, \frac{2}{6}, \frac{32}{29}, \frac{18}{18}$   
 C) \_\_\_\_\_

B)  $\frac{42}{2}, \frac{8}{27}, \frac{2}{6}, \frac{18}{18}$

31) \_\_\_\_\_

$$\frac{42}{2}, \frac{32}{29}, \frac{18}{18}$$

D)  $\frac{8}{27}$   
 $\frac{2}{6}$

32)  $\frac{61}{2}, \frac{5}{15}, \frac{2}{4}, \frac{49}{48}, \frac{24}{24}$  32) \_\_\_\_\_

A)  $\frac{61}{2}, \frac{5}{15}, \frac{2}{4}, \frac{49}{48}, \frac{24}{24}$

B)  $\frac{61}{2}, \frac{49}{48}, \frac{24}{24}$

C)  $\frac{5}{15}, \frac{2}{4}$

D)  $\frac{61}{2}, \frac{5}{15}, \frac{2}{4}, \frac{24}{24}$

33)  $\frac{62}{6}, \frac{8}{29}, \frac{2}{6}, \frac{34}{33}, \frac{32}{32}$  33) \_\_\_\_\_

A)  $\frac{62}{6}, \frac{8}{29}, \frac{2}{6}, \frac{32}{32}$

B)  $\frac{62}{6}, \frac{34}{33}, \frac{32}{32}$

C)  $\frac{8}{29}, \frac{2}{6}$

D)  $\frac{62}{6}, \frac{8}{29}, \frac{2}{6}, \frac{34}{33}, \frac{32}{32}$

34)  $\frac{58}{2}, \frac{9}{25}, \frac{2}{5}, \frac{61}{31}, \frac{59}{59}$  34) \_\_\_\_\_

A)  $\frac{58}{2}, \frac{61}{31}, \frac{59}{59}$

B)  $\frac{9}{25}, \frac{2}{5}$

C)  $\frac{58}{2}, \frac{9}{25}, \frac{2}{5}, \frac{61}{31}, \frac{59}{59}$

D)  $\frac{58}{2}, \frac{9}{25}, \frac{2}{5}, \frac{59}{59}$

Fill in the blanks to complete the sentence.

35)  $\frac{10}{13}$  35) \_\_\_\_\_

The fraction  $\frac{10}{13}$  represents \_\_\_\_\_ of the \_\_\_\_\_ equal parts into which a whole is divided.

A) 13, 10

B)  $\frac{10}{13}, 13$

C)  $\frac{10}{13}, 10$

D) 10, 13

Write the mixed number as an improper fraction.

36)  $4\frac{5}{9}$  36) \_\_\_\_\_

A)  $\frac{41}{5}$

B)  $\frac{36}{5}$

C)  $\frac{36}{9}$

D)  $\frac{41}{9}$

37)  $3\frac{4}{9}$  37) \_\_\_\_\_

A)  $\frac{31}{9}$

B)  $\frac{27}{4}$

C)  $\frac{27}{9}$

D)  $\frac{31}{4}$

38)  $\frac{3}{7}$  38) \_\_\_\_\_

A)  $\frac{28}{4}$

B)  $\frac{31}{4}$

C)  $\frac{28}{3}$

D)  $\frac{31}{3}$

39)  $\frac{5}{8}$   
4

39) \_\_\_\_\_

A)  $\frac{32}{5}$

B)  $\frac{32}{8}$

C)  $\frac{37}{8}$

D)  $\frac{37}{5}$

40)  $\frac{9}{10}$   
17

40) \_\_\_\_\_

A)  $\frac{189}{10}$

B)  $\frac{26}{10}$

C)  $\frac{179}{10}$

D)  $\frac{153}{10}$

41)  $\frac{10}{11}$   
13

41) \_\_\_\_\_

A) 260

B) 33

C)  $\frac{130}{11}$

D)  $\frac{153}{11}$

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

42)  $\frac{46}{3}$

42) \_\_\_\_\_

A)  $\frac{1}{15}$ <sup>3</sup>

B)  $\frac{1}{16}$ <sup>3</sup>

C)  $\frac{1}{14}$ <sup>7</sup>

D)  $\frac{1}{3}$

43)  $\frac{10}{4}$

43) \_\_\_\_\_

A)  $\frac{1}{2}$ <sup>2</sup>

B)  $\frac{1}{2}$ <sup>7</sup>

C)  $\frac{1}{1}$ <sup>2</sup>

D)  $\frac{1}{3}$ <sup>2</sup>

44)  $\frac{11}{5}$

44) \_\_\_\_\_

A)  $\frac{1}{2}$ <sup>5</sup>

B)  $\frac{1}{2}$ <sup>7</sup>

C)  $\frac{1}{1}$ <sup>5</sup>

D)  $\frac{1}{3}$ <sup>5</sup>

45)  $\frac{23}{3}$

45) \_\_\_\_\_

A)  $\frac{2}{7}$ <sup>3</sup>

B)  $\frac{2}{7}$ <sup>7</sup>

C)  $\frac{2}{8}$ <sup>3</sup>

D)  $\frac{2}{6}$ <sup>3</sup>

46)  $\frac{41}{8}$

46) \_\_\_\_\_

A)  $\frac{1}{6}$ <sup>8</sup>

B)  $\frac{1}{5}$ <sup>8</sup>

C)  $\frac{1}{4}$ <sup>8</sup>

D)  $\frac{1}{5}$ <sup>7</sup>

47)  $\frac{196}{7}$

47) \_\_\_\_\_

A) 197

B)  $\frac{28}{2}$

C) 28

D) 195



48)  $\frac{209}{4}$

A)  $\frac{4}{209}$

B)  $\frac{209}{4}$

C)  $\frac{1}{52^4}$

D)  $\frac{4}{209}$

48) \_\_\_\_\_

49)  $\frac{2767}{15}$

A)  $\frac{15}{2767}$

B)  $\frac{2767}{15}$

C)  $\frac{7}{184}$

D)  $\frac{15}{2767}$

49) \_\_\_\_\_

50)  $\frac{2534}{14}$

A)  $\frac{181}{2}$

B) 2535

C) 181

D) 2533

50) \_\_\_\_\_

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

51) 42

A) 7, 6, 14, 42

B) 1, 2, 3, 6, 7, 14, 28, 42

C) 1, 2, 3, 6, 7, 14, 21, 42

D) 1, 7, 6, 42

51) \_\_\_\_\_

52) 28

A) 2, 7, 14, 28

B) 1, 2, 4, 7, 14, 28

C) 1, 2, 4, 7, 8, 14, 28

D) 1, 2, 7, 14, 28

52) \_\_\_\_\_

53) 36

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

B) 2, 4, 6, 12, 18, 36

C) 1, 2, 3, 4, 6, 9, 12, 18, 36

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

53) \_\_\_\_\_

54) 45

A) 1, 3, 5, 9, 15, 30, 45

B) 1, 3, 5, 15, 45

C) 1, 2, 3, 5, 9, 15, 30, 45

D) 1, 3, 5, 9, 15, 45

54) \_\_\_\_\_

55) 56

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

B) 1, 2, 4, 7, 8, 14, 18, 28, 56

C) 1, 2, 4, 7, 8, 14, 28, 56

D) 2, 4, 7, 8, 14, 28

55) \_\_\_\_\_

56) 63

A) 1, 2, 3, 7, 9, 21, 36, 63

B) 1, 3, 5, 7, 9, 11, 21, 63

C) 3, 5, 7, 9, 11, 21, 63

D) 1, 3, 7, 9, 21, 63

56) \_\_\_\_\_

57) 66

A) 1, 2, 3, 6, 11, 22, 33, 66

B) 1, 3, 11, 22, 33, 66

C) 1, 2, 3, 9, 11, 22, 33, 66

D) 1, 2, 3, 4, 11, 16, 22, 33, 66

57) \_\_\_\_\_

58) 70

A) 1, 2, 3, 5, 7, 9, 15, 35, 70

B) 1, 3, 5, 7, 9, 15, 20, 35, 70

C) 1, 2, 5, 7, 10, 14, 35, 70

D) 1, 2, 5, 7, 35, 70

58) \_\_\_\_\_

59) 72

59) \_\_\_\_\_

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

60) 84

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

60) \_\_\_\_\_

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

61) 42

- A) Prime
- B) Composite

61) \_\_\_\_\_

62) 79

- A) Prime
- B) Composite

62) \_\_\_\_\_

63) 84

- A) Prime
- B) Composite

63) \_\_\_\_\_

64) 23

- A) Prime
- B) Composite

64) \_\_\_\_\_

65) 4

- A) Prime
- B) Composite

65) \_\_\_\_\_

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

66) 20

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

66) \_\_\_\_\_

67) 69

- A)  $3 \cdot 23$
- B)  $3^2$
- C)  $3 \cdot 21$
- D)  $3^2 \cdot 23$

67) \_\_\_\_\_

68) 224

- A)  $2^4 \cdot 11$
- B)  $2^4 \cdot 7$
- C)  $2^5 \cdot 5$
- D)  $2^5 \cdot 7$

68) \_\_\_\_\_

69) 192

- A)  $2^6 \cdot 3^2$
- B)  $2^5 \cdot 3$
- C)  $2^6 \cdot 3$
- D)  $2^5 \cdot 3^2$

69) \_\_\_\_\_

70) 165

- A)  $15 \cdot 11$
- B)  $5^2 \cdot 3$
- C)  $3 \cdot 5 \cdot 11$
- D)  $3^2 \cdot 11$

70) \_\_\_\_\_

71) 126

- A)  $2 \cdot 3 \cdot 7$
- B)  $2 \cdot 3^2 \cdot 7$
- C)  $14 \cdot 3^2$
- D)  $2 \cdot 3 \cdot 7$

71) \_\_\_\_\_

72) 396

- A)  $3^4 \cdot 11$
- B)  $2^4 \cdot 11$

72) \_\_\_\_\_

$$C) 2^2 \cdot 3^2 \cdot 11$$

$$D) 2^3 \cdot 3^2 \cdot 11$$

73) 2200

$$A) 2^3 \cdot 5^2 \cdot 11$$

$$C) 2^4 \cdot 5 \cdot 11$$

$$B) 2^3 \cdot 5^3 \cdot 11$$

$$D) 2 \cdot 5^4 \cdot 11$$

73) \_\_\_\_\_

74) 2800

$$A) 2^4 \cdot 5^2 \cdot 7$$

$$C) 2^3 \cdot 5^2 \cdot 7$$

$$B) 2^4 \cdot 5^2 \cdot 11$$

$$D) 2^4 \cdot 5 \cdot 7$$

74) \_\_\_\_\_

75) 2520

$$A) 2^3 \cdot 3^2 \cdot 7$$

$$C) 2^3 \cdot 3^2 \cdot 5 \cdot 7$$

$$B) 2^2 \cdot 3^3 \cdot 5 \cdot 7$$

$$D) 2^3 \cdot 3^2 \cdot 5 \cdot 11$$

75) \_\_\_\_\_

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

76) 40

$$A) 2, 4, 5, 8$$

$$C) 2, 4, 5, 10$$

$$B) 2, 4, 5$$

$$D) 2, 4, 5, 8, 10$$

76) \_\_\_\_\_

77) 936

$$A) 2, 3, 4, 8$$

$$C) 2, 3, 4, 6, 8, 9$$

$$B) 2, 3, 4$$

$$D) 2, 3, 6, 8$$

77) \_\_\_\_\_

78) 163

$$A) 3, 7$$

$$B) \text{None}$$

$$C) 3, 5$$

$$D) 3$$

78) \_\_\_\_\_

79) 901

$$A) \text{None}$$

$$B) 3$$

$$C) 3, 7$$

$$D) 3, 5$$

79) \_\_\_\_\_

80) 92,537

$$A) 3, 5$$

$$B) 3$$

$$C) 3, 7$$

$$D) \text{None}$$

80) \_\_\_\_\_

81) 1586

$$A) 2, 3, 4$$

$$B) 2$$

$$C) 3, 4$$

$$D) 4$$

81) \_\_\_\_\_

82) 17,958

$$A) 2, 3, 4$$

$$B) 2, 3, 6$$

$$C) 4, 5, 6$$

$$D) 3, 4, 6$$

82) \_\_\_\_\_

83) 4615

$$A) 10$$

$$B) 2, 5, 10$$

$$C) 5$$

$$D) 5, 10$$

83) \_\_\_\_\_

84) 2001

$$A) 3, 9$$

$$B) 9$$

$$C) 3$$

$$D) 2, 3, 9$$

84) \_\_\_\_\_

85) 119,260

$$A) 2, 4, 5, 10$$

$$B) 4, 5, 10$$

$$C) 2, 5$$

$$D) 4, 5$$

85) \_\_\_\_\_

**Write the fraction in lowest terms.**

$$86) \frac{6}{10}$$

86) \_\_\_\_\_

A)  $\frac{6}{5}$

B)  $\frac{3}{10}$

C)  $\frac{3}{5}$

D)  $\frac{5}{3}$

87)  $\frac{6}{14}$

87) \_\_\_\_\_

A)  $\frac{3}{14}$

B)  $\frac{6}{14}$

C)  $\frac{4}{8}$

D)  $\frac{3}{7}$

88)  $\frac{27}{63}$

88) \_\_\_\_\_

A)  $\frac{3}{7}$

B)  $\frac{3}{9}$

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

D)  $\frac{27}{63}$

89)  $\frac{88}{99}$

89) \_\_\_\_\_

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

B)  $\frac{8}{9}$

C)  $\frac{88}{99}$

D)  $\frac{11}{9}$

90)  $\frac{23}{30}$

90) \_\_\_\_\_

A)  $\frac{23}{30}$

B)  $\frac{15}{11}$

C)  $\frac{1}{30}$

D)  $\frac{11}{15}$

91)  $\frac{30}{40}$

91) \_\_\_\_\_

A)  $\frac{10}{4}$

B)  $\frac{3}{10}$

C)  $\frac{30}{40}$

D)  $\frac{3}{4}$

92)  $\frac{33}{36}$

92) \_\_\_\_\_

A)  $\frac{11}{3}$

B)  $\frac{11}{12}$

C)  $\frac{3}{12}$

D)  $\frac{33}{36}$

93)  $\frac{60}{80}$

93) \_\_\_\_\_

A)  $\frac{3}{4}$

B)  $\frac{20}{4}$

C)  $\frac{60}{80}$

D)  $\frac{3}{20}$

94)  $\frac{176}{224}$

94) \_\_\_\_\_

A)  $\frac{176}{224}$

B)  $\frac{11}{16}$

C)  $\frac{16}{14}$

D)  $\frac{11}{14}$

95)  $\frac{864}{24}$

95) \_\_\_\_\_

A)  $\frac{864}{24}$

B)  $\frac{1}{36}$

C) 36

D) 37

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)  $\frac{18}{24}$

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

C)  $\frac{2 \cdot 3 \cdot 3}{2 \cdot 2 \cdot 2 \cdot 3} = \frac{3}{2}$

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

D)  $\frac{2 \cdot 3 \cdot 3}{2 \cdot 2 \cdot 3} = \frac{3}{2}$

96) \_\_\_\_\_

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

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

C)  $\frac{2 \cdot 3 \cdot 5}{2 \cdot 2 \cdot 3 \cdot 5} = \frac{1}{5}$

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

D)  $\frac{2 \cdot 2 \cdot 3 \cdot 5}{2 \cdot 3 \cdot 5} = \frac{5}{1}$

97) \_\_\_\_\_

98)  $\frac{40}{196}$

A)  $\frac{2 \cdot 2 \cdot 2 \cdot 5}{2 \cdot 2 \cdot 2 \cdot 7} = \frac{5}{7}$

C)  $\frac{2 \cdot 2 \cdot 5 \cdot 5}{2 \cdot 2 \cdot 7 \cdot 7} = \frac{25}{49}$

B)  $\frac{2 \cdot 2 \cdot 2 \cdot 5}{2 \cdot 2 \cdot 7 \cdot 7} = \frac{10}{49}$

D)  $\frac{2 \cdot 2 \cdot 5}{2 \cdot 7 \cdot 7} = \frac{10}{49}$

98) \_\_\_\_\_

99)  $\frac{320}{364}$

A)  $\frac{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 5}{2 \cdot 2 \cdot 7 \cdot 13} = \frac{320}{364}$

C)  $\frac{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 5}{2 \cdot 7 \cdot 13} = \frac{80}{91}$

B)  $\frac{2 \cdot 3 \cdot 2 \cdot 5}{13} = \frac{80}{91}$

D)  $\frac{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 5}{2 \cdot 2 \cdot 7 \cdot 13} = \frac{80}{91}$

99) \_\_\_\_\_

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

100)  $\frac{3}{9}$  and  $\frac{27}{81}$

A) Equivalent

B) Not equivalent

100) \_\_\_\_\_

101)  $\frac{5}{6}$  and  $\frac{55}{96}$

A) Equivalent

B) Not equivalent

101) \_\_\_\_\_

102)  $\frac{5}{7}$  and  $\frac{19}{21}$

A) Equivalent

B) Not equivalent

102) \_\_\_\_\_

103)  $\frac{1}{6}$  and  $\frac{16}{96}$

A) Equivalent

B) Not equivalent

103) \_\_\_\_\_

104)  $\frac{20}{45}$  and  $\frac{16}{36}$

104) \_\_\_\_\_

A) Equivalent

B) Not equivalent

105)  $\frac{20}{45}$  and  $\frac{24}{63}$

105) \_\_\_\_\_

A) Equivalent

B) Not Equivalent

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

106)  $\frac{5}{6} \cdot \frac{1}{5}$

106) \_\_\_\_\_

A)  $\frac{5}{11}$

B)  $\frac{6}{11}$

C)  $\frac{5}{30}$

D)  $\frac{1}{6}$

107)  $\frac{1}{6} \cdot \frac{3}{5}$

107) \_\_\_\_\_

A)  $\frac{4}{11}$

B)  $\frac{3}{8}$

C)  $\frac{1}{10}$

D)  $\frac{3}{30}$

108)  $\frac{3}{7} \cdot \frac{1}{4}$

108) \_\_\_\_\_

A)  $\frac{4}{11}$

B)  $\frac{7}{12}$

C)  $\frac{3}{28}$

D)  $\frac{28}{3}$

109)  $\frac{3}{4} \cdot \frac{7}{8}$

109) \_\_\_\_\_

A)  $\frac{21}{32}$

B)  $\frac{7}{6}$

C)  $\frac{32}{21}$

D)  $\frac{5}{6}$

110)  $\frac{2}{5} \cdot \frac{11}{19}$

110) \_\_\_\_\_

A)  $\frac{38}{55}$

B)  $\frac{22}{95}$

C)  $\frac{22}{5}$

D)  $\frac{55}{38}$

111)  $\frac{3}{5} \cdot \frac{2}{3} \cdot \frac{1}{4}$

111) \_\_\_\_\_

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

B)  $\frac{1}{10}$

C)  $\frac{9}{40}$

D)  $\frac{1}{12}$

112)  $\frac{2}{5} \cdot \frac{1}{2} \cdot \frac{2}{9}$

112) \_\_\_\_\_

A)  $\frac{4}{45}$

B)  $\frac{9}{10}$

C)  $\frac{2}{5}$

D)  $\frac{2}{45}$

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

113) \_\_\_\_\_

A)  $\frac{3}{22}$

B)  $\frac{3}{11}$

C)  $\frac{3}{44}$

D)  $\frac{6}{11}$

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

114) \_\_\_\_\_

A)  $\frac{5}{18}$

B)  $\frac{5}{24}$

C)  $\frac{5}{6}$

D)  $\frac{5}{9}$

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

115)  $\frac{4}{9}$

115) \_\_\_\_\_

45 ·

A) 20

B) 16

C)  $\frac{85}{216}$

D) 5

116)  $\frac{5}{9}$

116) \_\_\_\_\_

24 ·

A)  $\frac{1}{3}$

B) 40

C)  $\frac{5}{27}$

D) 5

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

117) \_\_\_\_\_

120 ·

A)  $\frac{120}{4}$

B) 30

C) 3

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

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

118) \_\_\_\_\_

120 ·

A) 120

B) 80

C) 150

D) 100

119)  $\frac{2}{5}$

119) \_\_\_\_\_

· 460

A) 230

B) 460

C) 182

D) 184

120)  $\frac{1}{6}$

120) \_\_\_\_\_

· 185

A)  $\frac{1}{6}$

B)  $\frac{1}{1110}$

C)  $\frac{5}{306}$

D) 185

121)  $\frac{1}{10} \cdot \frac{2}{21}$

121) \_\_\_\_\_

20 ·

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

B) 4

C)  $\frac{2}{105}$

D)  $\frac{4}{21}$

122)  $\frac{13}{10} \cdot \frac{8}{9}$

122) \_\_\_\_\_

· 630 ·

A)  $\frac{8}{9}$

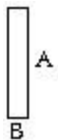
B) 728

C)  $\frac{2}{746}$

D) 672

**Find the area of the rectangle.**

123)



$$A = \frac{1}{2}$$

$$\frac{4}{9} \text{ foot}$$

$$\text{foot}$$

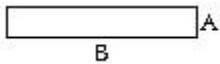
$$B =$$

123)

- A)  $\frac{4}{11}$  square foot  
 C)  $\frac{5}{11}$  square foot

- B)  $\frac{4}{18}$  square foot  
 D)  $\frac{2}{9}$  square foot

124)

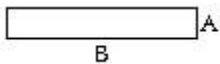


$A = \frac{5}{8}$  in.  
 $B = 8$  in.

- A)  $5 \text{ in.}^2$       B)  $\frac{69}{8} \text{ in.}^2$       C)  $\frac{13}{8} \text{ in.}^2$       D)  $\frac{40}{8} \text{ in.}^2$

124) \_\_\_\_\_

125)



$A = \frac{16}{33}$  mi  
 $B = \frac{9}{20}$  mi

- A)  $\frac{11}{21} \text{ mi}^2$       B)  $\frac{25}{53} \text{ mi}^2$       C)  $\frac{144}{660} \text{ mi}^2$       D)  $\frac{12}{55} \text{ mi}^2$

125) \_\_\_\_\_

**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 18 feet and a width of  $\frac{1}{8}$  foot. 126) \_\_\_\_\_

width of  $\frac{1}{8}$  foot.

- A)  $\frac{1}{4} \text{ ft}^2$       B)  $\frac{1}{2} \text{ ft}^2$       C)  $\frac{1}{16} \text{ ft}^2$       D)  $1 \text{ ft}^2$

127) Find the area of a rectangular table top having a length of 5 feet and a width of  $\frac{13}{4}$  feet. 127) \_\_\_\_\_

width of  $\frac{13}{4}$  feet.

- A)  $\frac{4}{65} \text{ ft}^2$       B)  $\frac{1}{16} \text{ ft}^2$       C)  $\frac{1}{4} \text{ ft}^2$       D)  $9 \text{ ft}^2$

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

area of the parking lot.

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

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



$\frac{1}{4}$  yard 129) \_\_\_\_\_

wide.  
Which  
cake has  
the  
larger  
area?

A) Layer Cake B

B) Layer Cake A

**Solve the problem.**

130)  $\frac{3}{14}$  mile by  $\frac{2}{13}$  mile. Find the area of the parking lot. 130) \_\_\_\_\_

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

- A)  $\frac{5}{182}$  mi<sup>2</sup>      B)  $\frac{5}{27}$  mi<sup>2</sup>      C)  $\frac{2}{91}$  mi<sup>2</sup>      D)  $\frac{3}{91}$  mi<sup>2</sup>

131) Find the area of a rectangular table top having a length of 5 feet and a width of  $\frac{5}{2}$  feet. 131) \_\_\_\_\_

width of  $\frac{5}{2}$  feet.

- A)  $\frac{3}{4}$  ft<sup>2</sup>      B)  $\frac{2}{25}$  ft<sup>2</sup>      C)  $\frac{1}{12}$  ft<sup>2</sup>      D)  $\frac{1}{7}$  ft<sup>2</sup>

132) A rectangular sheet of paper measures  $\frac{1}{3}$  foot by  $\frac{2}{3}$  foot. Find its area. 132) \_\_\_\_\_

A rectangular sheet of paper measures  $\frac{1}{3}$  foot by  $\frac{2}{3}$  foot. Find its area.

- A)  $\frac{1}{3}$  ft<sup>2</sup>      B) 1 ft<sup>2</sup>      C)  $\frac{1}{2}$  ft<sup>2</sup>      D)  $\frac{2}{9}$  ft<sup>2</sup>

133) A rectangular dog bed is  $\frac{2}{7}$  yard by  $\frac{1}{3}$  yard. Find its area. 133) \_\_\_\_\_

A rectangular dog bed is  $\frac{2}{7}$  yard by  $\frac{1}{3}$  yard. Find its area.

- A)  $\frac{3}{10}$  yd<sup>2</sup>      B)  $\frac{2}{21}$  yd<sup>2</sup>      C) 1 yd<sup>2</sup>      D)  $\frac{1}{7}$  yd<sup>2</sup>

134) A warehouse stores 3125 different inventory items, of which  $\frac{1}{25}$  are perishable. How many of the inventory items are perishable? 134) \_\_\_\_\_

A warehouse stores 3125 different inventory items, of which  $\frac{1}{25}$  are perishable. How many of the inventory items are perishable?

- A) 125 items      B) 128 items  
C) 124 items      D) 1562 items

135) Mr. and Mrs. Jones have a personal loan of \$ 9000. They have paid off  $\frac{3}{9}$  of the loan. How much of the loan have they paid off? 135) \_\_\_\_\_

Mr. and Mrs. Jones have a personal loan of \$ 9000. They have paid off  $\frac{3}{9}$  of the loan. How much of the loan have they paid off?

- A) \$ 2700      B) \$ 1000      C) \$ 3300      D) \$ 3000

136) During elections at the local union,  $\frac{8}{12}$  of the members voted. If there are 228 members, how many voted? 136) \_\_\_\_\_

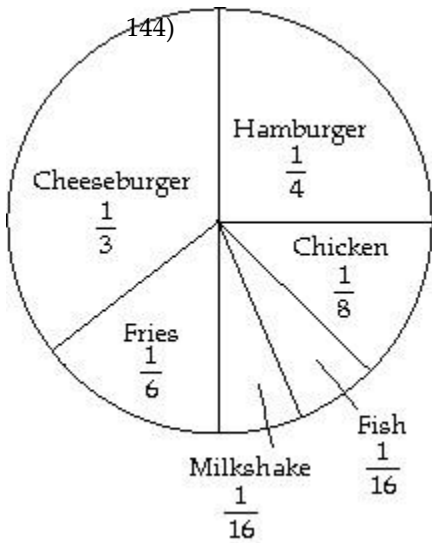
During elections at the local union,  $\frac{8}{12}$  of the members voted. If there are 228 members, how many voted?

- A) 160 members      B) 19 members  
C) 152 members      D) 144 members

- 137) \_\_\_\_\_  $\frac{5}{20}$  137) \_\_\_\_\_  
 A restaurant has a capacity of 100 patrons. If the restaurant is  $\frac{5}{20}$  full, how many patrons are at the restaurant?  
 A) 20 patrons B) 5 patrons  
 C) 25 patrons D) 30 patrons
- 138) Bob can machine 240 units in 12 hours. How many units can he machine in 4 hours? 138) \_\_\_\_\_  
 A) 80 units B) 20 units C) 5 unit(s) D) 960 units
- 139) Betsy can ride her bike 24 miles in 8 hours. How many miles can she ride in 4 hours? 139) \_\_\_\_\_  
 A) 96 miles B) 3 miles C) 12 miles D) 0 mile(s)
- 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)  $\frac{4}{15}$  B)  $\frac{1}{5}$  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)  $\frac{2}{25}$  B)  $\frac{2}{3}$  C)  $\frac{4}{15}$  D)  $\frac{3}{50}$
- 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)  $\frac{2}{15}$  D)  $\frac{1}{4}$
- 143) \_\_\_\_\_  $\frac{2}{3}$  143) \_\_\_\_\_  
 A certain scholarship will pay for  $\frac{2}{3}$  of a student's total tuition. How much will a student who receives this scholarship pay toward tuition, if tuition is \$ 540?  
 A) \$ 532 B) \$ 180 C) \$ 360 D) \$ 495

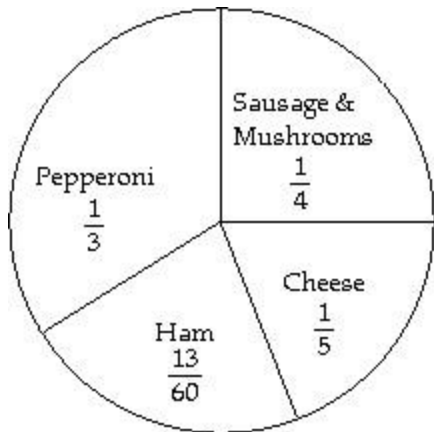
**Use the circle graph to answer the question.**

- 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.



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

145) On a typical night at Skinny's Pizza, 240 pizzas are ordered. How many sausage & mushroom pizzas are ordered?      145) \_\_\_\_\_



- A) 48 pizzas      B) 60 pizzas      C) 56 pizzas      D) 80 pizzas

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

147) What was the family's total income for the year?      147) \_\_\_\_\_  
 A) \$23,750      B) \$24,000      C) \$22,000      D) \$25,150

- 148)  $\frac{19}{100}$  of their total income in taxes for the year, how much was paid in taxes? 148) \_\_\_\_\_  
 A) \$ 4778.50      B) \$ 5130      C) \$ 5624      D) \$ 3990
- 149)  $\frac{7}{100}$  of the family's total income was spent on clothing, how much was spent for clothing last year? 149) \_\_\_\_\_  
 A) \$ 1760.50      B) \$ 1680      C) \$ 1890      D) \$ 2030
- 150)  $\frac{19}{100}$  of their total income each month. How much savings did they have at the end of June? 150) \_\_\_\_\_  
 A) \$ 1748      B) \$ 2308.50      C) \$ 2204      D) \$ 2470
- 151)  $\frac{7}{50}$  of their total income each month. How much savings did they have at the end of the year? 151) \_\_\_\_\_  
 A) \$ 3521      B) \$ 2940      C) \$ 3780      D) \$ 4144
- 152)  $\frac{3}{20}$  of their income for food purchases. How much did they spend on food purchases for the year? 152) \_\_\_\_\_  
 A) \$ 4440      B) \$ 3772.50      C) \$ 4050      D) \$ 3150
- 153)  $\frac{7}{50}$  of their income on rent payments. How much did they spend on rent for the year? 153) \_\_\_\_\_  
 A) \$ 3521      B) \$ 2940      C) \$ 4144      D) \$ 3780
- 154)  $\frac{1}{10}$  of the family income is spent on entertainment, how much did they spend for entertainment last year? 154) \_\_\_\_\_  
 A) \$ 2100      B) \$ 2515      C) \$ 2700      D) \$ 2960
- 155)  $\frac{1}{5}$  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)  $\frac{6}{19}$  156) \_\_\_\_\_  
 A)  $\frac{6}{19}$       B) 19      C)  $\frac{1}{6}$       D)  $\frac{19}{6}$
- 157)  $\frac{1}{10}$  157) \_\_\_\_\_  
 A) No reciprocal      B) 1

C)  $\frac{1}{10}$

D) 10

158) 5

A) No reciprocal

B)  $\frac{1}{5}$

158) \_\_\_\_\_

C) 5

D) 1

159)  $\frac{17}{19}$ 

A)  $\frac{19}{17}$

B)  $\frac{1}{17}$

C) 19

D)  $\frac{1}{19}$

159) \_\_\_\_\_

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

160)  $\frac{3}{4} \div \frac{4}{5}$

160) \_\_\_\_\_

A)  $\frac{15}{16}$

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

C) 12

D)  $\frac{1}{12}$

161)  $\frac{1}{2} \div \frac{3}{5}$

161) \_\_\_\_\_

A)  $\frac{1}{5}$

B)  $\frac{1}{3}$

C)  $\frac{1}{2^2}$

D)  $\frac{5}{6}$

162)  $\frac{2}{7} \div \frac{5}{7}$

162) \_\_\_\_\_

A)  $\frac{1}{2^2}$

B)  $\frac{7}{10}$

C)  $\frac{2}{5}$

D)  $\frac{3}{1^7}$

163)  $\frac{3}{8} \div \frac{3}{4}$

163) \_\_\_\_\_

A)  $\frac{2}{10^3}$

B)  $\frac{3}{32}$

C) 2

D)  $\frac{1}{2}$

164)  $\frac{3}{4} \div \frac{6}{7}$

164) \_\_\_\_\_

A)  $\frac{5}{1^9}$

B)  $\frac{9}{14}$

C)  $\frac{1}{1^7}$

D)  $\frac{7}{8}$

165)  $\frac{4}{9} \div \frac{7}{5}$

165) \_\_\_\_\_

A)  $\frac{20}{63}$

B)  $\frac{17}{1^28}$

C)  $\frac{28}{45}$

D)  $\frac{3}{3^20}$

166)  $\frac{2}{3} \div \frac{1}{6}$

166) \_\_\_\_\_

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

B) 9

C) 4

D)  $\frac{1}{9}$

167)  $\frac{5}{12} \div \frac{5}{8}$  167) \_\_\_\_\_  
 A)  $\frac{1}{2}$       B)  $\frac{2}{3}$       C)  $\frac{1}{3}$       D)  $\frac{25}{96}$   
 $1^{\frac{2}{3}}$

168)  $\frac{\frac{4}{9}}{\frac{1}{6}}$  168) \_\_\_\_\_  
 A)  $\frac{2}{27}$       B)  $\frac{2}{3}$       C)  $\frac{4}{9}$       D)  $\frac{1}{3}$   
 $2^{\frac{3}{2}}$

169)  $\frac{\frac{5}{11}}{\frac{35}{22}}$  169) \_\_\_\_\_  
 A)  $\frac{3}{7}$       B)  $\frac{2}{7}$       C)  $\frac{175}{242}$       D)  $\frac{1}{3^2}$   
 $1^{\frac{3}{7}}$

170)  $21 \div \frac{3}{7}$  170) \_\_\_\_\_  
 A)  $\frac{1}{49}$       B) 7      C) 9      D) 49

171)  $6 \div \frac{2}{5}$  171) \_\_\_\_\_  
 A)  $\frac{2}{2^5}$       B) 15      C) 6      D)  $\frac{1}{15}$

172)  $35 \div \frac{5}{7}$  172) \_\_\_\_\_  
 A) 49      B)  $\frac{1}{49}$       C) 7      D) 25

173)  $2 \div \frac{5}{8}$  173) \_\_\_\_\_  
 A)  $\frac{1}{10}$       B)  $\frac{1}{4}$       C)  $\frac{1}{3^5}$       D)  $\frac{5}{16}$   
 $1^{\frac{4}{3}}$

174)  $\frac{7}{2} \div 2$  174) \_\_\_\_\_  
 A)  $\frac{3}{1^4}$       B) 7      C)  $\frac{1}{7}$       D)  $\frac{1}{4}$

175)  $\frac{2}{3} \div 8$  175) \_\_\_\_\_  
 A)  $\frac{2}{7}$  B)  $\frac{1}{2}$  C) 12 D)  $\frac{1}{12}$

176)  $\frac{25}{7} \div 5$  176) \_\_\_\_\_  
 A) 5 B)  $\frac{5}{7}$  C)  $\frac{2}{5}$  D)  $\frac{6}{17}$

177)  $\frac{\frac{6}{3}}{5}$  177) \_\_\_\_\_  
 A)  $\frac{3}{5}$  B)  $\frac{1}{10}$  C) 10 D) 6

178)  $\frac{35}{\frac{5}{2}}$  178) \_\_\_\_\_  
 A)  $\frac{1}{87}$  B)  $\frac{1}{14}$  C) 14 D) 7

179)  $\frac{\frac{24}{7}}{4}$  179) \_\_\_\_\_  
 A)  $\frac{6}{7}$  B)  $\frac{5}{13}$  C) 6 D)  $\frac{1}{16}$

**Solve the problem.**

180) A land developer wants to develop 30 acres of land. Each lot in the development is to be  $\frac{6}{13}$  of an acre. How many lots will the land developer have in the 30 acres? 180) \_\_\_\_\_  
 A) 65 lots B)  $\frac{3}{2}$  lots  
 C)  $\frac{11}{13}$  lot(s) D)  $\frac{5}{13}$  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) 16 servings B)  $\frac{3}{3}$  servings  
 C) 5

$\frac{1}{3}$  servings

D) 9  
servings

- 182)  $\frac{3}{4}$  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?  
A)  $\frac{1}{3}$  servings  
B)  $\frac{3}{4}$  servings  
C) 32 servings  
D) 18 servings

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

- 184)  $\frac{1}{6}$  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 5 dose cups, how many children's doses are there in the bottle?  
A)  $\frac{1}{6}$  doses  
B) 30 doses  
C) 11 doses  
D)  $\frac{5}{6}$  dose(s)

- 185)  $\frac{2}{3}$  185) \_\_\_\_\_  
A technician has readings that take  $\frac{2}{3}$  minute each to read and record. How many readings can be completed in 48 minutes?  
A) 72 readings  
B) 16 readings  
C) 18 readings  
D) 32 readings

- 186)  $\frac{1}{3}$  186) \_\_\_\_\_  
The floor of a rectangular room is to be tiled with  $\frac{1}{3}$ -foot square tiles along a 10-foot wall. How many tiles will be needed along the wall?  
A) 30 tiles  
B)  $\frac{1}{3}$  tiles  
C) 31 tiles  
D)  $\frac{1}{3}$  tiles

- 187)  $\frac{6}{7}$  187) \_\_\_\_\_  
A piece of cheese weighing  $\frac{6}{7}$  pound is to be divided into 8 equal portions. What will be the weight of each portion?  
A)  $\frac{1}{3}$  pounds  
B)  $\frac{4}{21}$  pound(s)  
C)  $\frac{3}{28}$  pound  
D)  $\frac{6}{7}$  pound(s)



188) \_\_\_\_\_  
A piece of cable which is  $\frac{5}{6}$  m long is to be cut into pieces  $\frac{1}{12}$  m long.  
How many pieces will there be?

- A) 60 pieces      B) 10 pieces      C)  $\frac{1}{10}$  piece      D) 72 pieces

189) \_\_\_\_\_  
The recipe for a chocolate chip cake calls for  $\frac{5}{6}$  pound of chocolate chips. If a bakery wants to make 36 cakes, how many pounds of chocolate chips will they need?

- A) 6 pounds      B) 30 pounds  
C) 25 pounds      D)  $\frac{1}{7^5}$  pounds

190) \_\_\_\_\_  
An upholsterer wants to reupholster 180 chairs for a banquet hall. If each chair needs  $\frac{1}{6}$  pound of brass tacks, how many pounds of brass tacks are needed?

- A) 30 pounds      B) 108 pounds  
C) 3 pounds      D) 1080 pounds

191) \_\_\_\_\_  
A mechanic uses on average  $\frac{4}{5}$  gallon(s) of gear lube to service each tractor differential. Find the number of tractors that can be serviced with 8 gallons of gear lube.

- A) 2 tractors      B) 10 tractors  
C)  $\frac{2}{6^5}$  tractors      D) 32 tractors

192) \_\_\_\_\_  
A building contractor finds that  $\frac{3}{7}$  can of pipe joint compound is needed to plumb each new home. How many homes can be plumbed with 6 cans of compound?

- A)  $\frac{4}{2^7}$  homes      B)  $\frac{1}{10^2}$  homes  
C) 6 homes      D) 14 homes

193) \_\_\_\_\_  
Jeremy has traveled  $\frac{6}{7}$  of his total trip. If the trip is a total of 819 miles, how many miles has he gone?

- A) 117 miles      B)  $\frac{2}{100^7}$  miles  
C) 351 miles      D) 702 miles

194) Susan has been working on a job that will require 45 hours to complete. If she has completed 15 hours of the job, how many hours does she have left to complete the job?

$\frac{4}{5}$  194) \_\_\_\_\_  
 eted  
 of the  
 job, how  
 many  
 hours  
 has she  
 worked?

- A) 36 hours      B) 18 hours      C)  $\frac{1}{7^5}$  hours      D) 9 hours

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 888 yards of fabric.  
 A) 2220 scarves      B) 1480 scarves  
 C) 533 scarves      D) 355 scarves

196) \_\_\_\_\_  
 Each patient will receive  $\frac{7}{10}$  vial of medication. How many patients can  
 be treated with 3850 vials of medication?  
 A) 5500 patients      B) 2695 patients  
 C) 550 patients      D) 5390 patients

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

197)  $\frac{1}{17^2} \cdot 3^{\frac{3}{5}}$  \_\_\_\_\_  
 A) 63      B)  $\frac{3}{51^{10}}$       C) 64      D) 55

198)  $\frac{2}{2^3} \cdot \frac{1}{7^2}$  \_\_\_\_\_  
 A) 19      B) 20      C) 21      D)  $\frac{5}{14^6}$

199)  $\frac{7}{1^9} \cdot \frac{1}{2^4}$  \_\_\_\_\_  
 A) 4      B) 0      C) 2      D) 3

200)  $\frac{1}{5^2} \cdot 6$  \_\_\_\_\_  
 A) 60      B) 30      C)  $\frac{1}{11^2}$       D) 33

201)  $5 \cdot 6^{\frac{17}{20}}$  \_\_\_\_\_  
 A) 11

$\frac{1}{4}$

B)  $\frac{34}{\frac{1}{4}}$       C)  $\frac{34}{\frac{3}{4}}$       D)  $\frac{30}{\frac{17}{20}}$

202)  $\frac{1}{5 \cdot 2^{\frac{1}{20}}}$       202) \_\_\_\_\_  
A)  $\frac{1}{9^4}$       B) 10      C)  $\frac{1}{10^{\frac{1}{20}}}$       D)  $\frac{1}{10^4}$

203)  $\frac{1}{1^{\frac{1}{5}} \cdot \frac{4}{9}}$       203) \_\_\_\_\_  
A)  $\frac{8}{1^{15}}$       B)  $\frac{6}{15}$       C)  $\frac{8}{15}$       D)  $\frac{4}{1^{45}}$

204)  $\frac{1}{1^{\frac{1}{4}} \cdot \frac{1}{7} \cdot \frac{4}{5}}$       204) \_\_\_\_\_  
A)  $\frac{2}{7}$       B)  $\frac{2}{5}$       C)  $\frac{1}{7}$       D)  $\frac{1}{35}$

205)  $\frac{4}{2 \cdot 5^{\frac{4}{9}} \cdot \frac{4}{7}}$       205) \_\_\_\_\_  
A)  $\frac{2}{5^9}$       B)  $\frac{1}{6^9}$       C)  $\frac{2}{6^9}$       D)  $\frac{6}{2^9}$

206)  $\frac{1}{5^{\frac{1}{7}} \cdot 5 \cdot \frac{4}{5}}$       206) \_\_\_\_\_  
A)  $\frac{4}{25^{\frac{1}{7}}}$       B)  $\frac{4}{20^{\frac{1}{7}}}$       C)  $\frac{4}{10^{\frac{1}{7}}}$       D)  $\frac{5}{25^{\frac{1}{28}}}$

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

207)  $\frac{3}{5^{\frac{3}{8}} \div 3^{\frac{3}{8}}}$       207) \_\_\_\_\_  
A)  $\frac{16}{2^{\frac{16}{27}}}$       B)  $\frac{16}{1^{\frac{16}{26}}}$       C)  $\frac{16}{1^{\frac{16}{27}}}$       D)  $\frac{17}{1^{\frac{17}{27}}}$

208)  $\frac{8}{3^{\frac{8}{9}} \div 2^{\frac{1}{6}}}$       208) \_\_\_\_\_  
A)  $\frac{31}{1^{\frac{31}{38}}}$       B)  $\frac{31}{2^{\frac{31}{39}}}$       C)  $\frac{31}{1^{\frac{31}{39}}}$       D)  $\frac{32}{1^{\frac{32}{39}}}$

209)  $\frac{1}{4^{\frac{1}{4}} \div 3^{\frac{1}{5}}}$       209) \_\_\_\_\_  
A)  $\frac{21}{1^{\frac{21}{64}}}$       B)  $\frac{21}{1^{\frac{21}{63}}}$       C)  $\frac{22}{1^{\frac{22}{64}}}$       D)  $\frac{21}{2^{\frac{21}{64}}}$

210)  $\frac{3}{4} \div \frac{2}{5}$  210) \_\_\_\_\_  
 A)  $\frac{19}{27}$  B)  $\frac{19}{3^{28}}$  C)  $\frac{19}{2^{28}}$  D)  $\frac{20}{2^{28}}$

211)  $18 \div 1\frac{4}{5}$  211) \_\_\_\_\_  
 A) 11 B) 9 C)  $\frac{1}{8^2}$  D) 10

212)  $\frac{5}{9} \div 10$  212) \_\_\_\_\_  
 A)  $\frac{6}{9}$  B)  $\frac{5}{9}$  C)  $\frac{5}{8}$  D)  $\frac{4}{9}$

213)  $\frac{1}{5} \div \frac{1}{5}$  213) \_\_\_\_\_  
 A) 15 B) 16 C) 17 D)  $\frac{1}{14^2}$

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

**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, then flatten with a fork. Cook until brown.**

214) If the recipe is doubled, how much brown sugar will be needed? 214) \_\_\_\_\_  
 A) Estimate: 3 cups B) Estimate: 3 cups  
 Exact: 4 cups Exact:  $2\frac{1}{2}$  cups  
 C) Estimate: 4 cups D) Estimate: 4 cups  
 Exact: 4 cups Exact: 3 cups

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

A) Estimate: 1 tsp

$$\frac{3}{4}$$

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

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

Exact: 1 tsp

B) Estimate: 2 tsp

Exact: 3 tsp

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

Exact:  $1\frac{1}{2}$  tsp

216)

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

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

Exact: 5 cups

C) Estimate: 4 cups

Exact:  $3\frac{3}{4}$  cups

B) Estimate: 3 cups

Exact: 3 cups

D) Estimate: 6 cups

Exact:  $3\frac{3}{4}$  cups

216) \_\_\_\_\_

217)

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

A) Estimate: 4 tsp

Exact:  $3\frac{3}{8}$  tsp

C) Estimate: 4 tsp

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

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

Exact: 6 tsp

D) Estimate: 6 tsp

Exact:  $3\frac{3}{8}$  tsp

217) \_\_\_\_\_

**Solve the problem.**

218)

A small company sells stock for  $10\frac{1}{4}$  dollars per share. How much will 64 shares cost?

A)  $\frac{10}{41}$  dollars

C) 656 dollars

B) 82 dollars

D) 80 dollars

218) \_\_\_\_\_

219)

Tim needs to apply  $2\frac{1}{4}$  gallons of herbicide per acre of soybeans. How many gallons of herbicide are needed for 280 acres?

A)  $\frac{4}{9}$  gallons

C) 630 gallons

B) 141 gallons

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

219) \_\_\_\_\_

220)

On a certain map, 1 inch equals 40 miles. How many miles are in  $4\frac{3}{4}$  inches?

A) 40

220) \_\_\_\_\_

$\frac{3}{4}$  miles

- B) 19  
0  
mi  
les  
D)  $\frac{8}{19}$  miles

C) 43 miles

- 221)  $\frac{1}{3}$  minutes each to read and record. How many readings can be completed in 210 minutes? 221) \_\_\_\_\_  
A) 90 readings B) 490 readings  
C) 141 readings D) 12 readings

- 222)  $\frac{1}{3}$  foot square tiles 222) \_\_\_\_\_  
The floor of a rectangular room is to be tiled with  $\frac{1}{3}$  foot square tiles along a  $6\frac{3}{8}$  foot wall. How many tiles will be needed along the wall?  
A) 21 tiles B)  $\frac{1}{8}$  tiles C)  $\frac{3}{8}$  tiles D)  $\frac{1}{8}$  tiles

- 223)  $\frac{1}{2}$  per share. If someone purchased \$1975 worth of stock in this company, how many shares did they get? 223) \_\_\_\_\_  
A) 352 shares B) 1975 shares  
C) 158 shares D) 3950 shares

- 224)  $\frac{1}{2}$  cups of concentrate per quart of water to make a certain 224) \_\_\_\_\_  
juice. How many cups are needed to make  $11\frac{1}{2}$  quarts of juice?  
A)  $\frac{3}{5}$  cups B) 115 cups C)  $\frac{1}{2}$  cups D)  $\frac{3}{4}$  cups

- 225)  $\frac{9}{10}$  gallons of gas. How many miles per gallon did it get? 225) \_\_\_\_\_  
A) 30 mpg B)  $\frac{11}{15}$  mpg C)  $\frac{4}{5}$  mpg D) 31 mpg

**Provide an appropriate response.**

- 226)  $\frac{10}{10}$  226) \_\_\_\_\_  
When the numerator is the same as the denominator, for example  $\frac{10}{10}$ , the fraction is called a(n) \_\_\_\_\_ fraction.  
A) whole B) uncommon  
C) proper D) improper

- 227) A proper fraction has the form  $\frac{x}{16}$ . What is the largest possible number that x can be? 227) \_\_\_\_\_  
 A) 16                      B) 17                      C) 8                      D) 15
- 228) You are asked to change  $9\frac{11}{15}$  to an improper fraction. What should be your first step? 228) \_\_\_\_\_  
 A) Multiply 11 and 9.                      B) Multiply 15 and 9.  
 C) Add 9 and 11.                      D) Divide 11 by 15.
- 229) You are asked to change  $\frac{23}{19}$  to a mixed number. What should be your first step? 229) \_\_\_\_\_  
 A) Multiply 23 and 19.                      B) Divide 23 by 19.  
 C) Add 23 and 19.                      D) Divide 19 by 23.
- 230) A prime number has exactly \_\_\_\_\_ factor(s). 230) \_\_\_\_\_  
 A) 0                      B) 1                      C) 2                      D) 3
- 231) The only consecutive whole numbers that are both prime numbers are \_\_\_\_\_ and \_\_\_\_\_. 231) \_\_\_\_\_  
 A) 2 and 3                      B) 1 and 2                      C) 6 and 7                      D) 0 and 1
- 232) One way to determine if two fractions are equivalent is to use \_\_\_\_\_. 232) \_\_\_\_\_  
 A) common factors                      B) equivalent terms  
 C) the method of prime factors                      D) simplification
- 233) Multiply two fractions by \_\_\_\_\_ the numerators and \_\_\_\_\_ the denominators. 233) \_\_\_\_\_  
 A) multiplying; multiplying                      B) multiplying; adding  
 C) multiplying; canceling                      D) adding; multiplying
- 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  $\frac{1}{2}$ , the answer is \_\_\_\_\_ the fraction. 234) \_\_\_\_\_  
 A) always greater than                      B) always less than  
 C) sometimes greater than                      D) cannot be determined
- 235) Finish the statement with a correct response. To divide two fractions one needs to: 235) \_\_\_\_\_  
 A) Use the reciprocal of the second fraction (divisor) and multiply.  
 B) Add the numerators and factor the denominators.  
 C) Add the numerators and multiply the denominators.  
 D) Use the reciprocal of the second fraction (divisor), add the numerators and multiply the denominators.

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



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

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

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

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