Test Bank for College Mathematics for Trades and Technologies 10th Cleaves

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Exam

Name_____

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

Use divisibility rules to determine whether the given number is divisible by 2, 3, 5, or any combination of these.

1) 26,400 1) _____
A) 2 B) 2, 5 C) 2, 3, 5 D) 5

2) 4,620 2) _____
A) 2, 3, 5 B) 2 C) 5 D) 2, 5

3) 28,206 3) _____
A) 3 B) 2, 3 C) 2 D) 2, 5

4) 33,010 4) _____
A) 2, 5 B) 5 C) 2 D) 2, 3

5) 4,023 5) _____
A) 5 B) 3, 5 C) 2, 3 D) 3

Use the tests for divisibility to answer the question.

6) Is 63 divisible by 7? 6) _____
A) Yes B) No

7) Is 53 divisible by 7? 7) _____
A) Yes B) No

8) Is 180 divisible by 5? 8) _____
A) Yes B) No

9) Is 377 divisible by 13? 9) _____
A) Yes B) No

10) Is 109 divisible by 4? 10) _____
A) Yes B) No

Provide an appropriate response.

11) By examining the last digit of 3,455 only, which number is it divisible by? 11) _____
A) 9 B) 6 C) 4 D) 5

12) 6, 9, and 18 are all multiples of which number? 12) _____
A) 2 B) 972 C) 6 D) 3

13) By only examining the last two digits of 6,380, which number is it divisible by? 13) _____
A) 2 B) 4 C) 8 D) 9

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14) Which rule guarantees 927 is divisible by 3? 14) _____

A) The sum of the digits is divisible by 3.
B) The last two digits are even.
C) The last digit is even and 24 is divisible by 6.
D) The last digit is even and the sum of the digits is divisible by 3.

15) Which basic arithmetic operation is implied when you use the word "factor"? 15) _____

A) Subtraction B) Multiplication C) Division D) Addition

16) Which rule guarantees 4,150 is divisible by 5? 16) _____

A) The last digit is a zero.
B) The last three digits form a number divisible by 5.
C) There are two consecutive digits that are divisible by 8.
D) At least two of the digits are even.

17) 140 is divisible by which two numbers? 17) _____

A) 5 and 3 B) 2 and 9 C) 10 and 8 D) 2 and 7

18) Identify the list that is a list of multiples of 25. 18) _____

A) 25, 75, 125, 155, 175 B) 25, 50, 75, 140, 175
C) 25, 50, 75, 100, 125 D) 25, 50, 100, 270, 400

19) 3, 6, and 9 are multiples of which number? 19) _____

A) 6 B) 2 C) 9 D) 3

List all the factors of each number.

20) 14 20) _____

A) $2 \cdot 8$ B) $2 \cdot 9$ C) $2 + 7$ D) $2 \cdot 7$

21) 34 21) _____

A) $2 \cdot 2 \cdot 2$ B) $2 \cdot 17$ C) $2 \cdot 18$ D) $2 \cdot 2 \cdot 5$

22) 12 22) _____

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

23) 105 23) _____

A) $3 \cdot 5 \cdot 7$ B) $5 \cdot 5 \cdot 3$ C) $15 \cdot 7$ D) $3 \cdot 3 \cdot 7$

24) 141 24) _____

A) $3 \cdot 3$ B) $3 \cdot 47$ C) $3 \cdot 45$ D) $3 \cdot 3 \cdot 47$

25) 198 25) _____

A) $22 \cdot 3 \cdot 3$ B) $2 \cdot 2 \cdot 3 \cdot 3 \cdot 11$ C) $2 \cdot 3 \cdot 3 \cdot 11$ D) $2 \cdot 3 \cdot 11$

26) 162 26) _____

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

27) 112 27) _____

A) $2 \cdot 2 \cdot 2 \cdot 2 \cdot 7 \cdot 7$ B) $2 \cdot 2 \cdot 2 \cdot 7 \cdot 7$ C) $2 \cdot 2 \cdot 2 \cdot 2 \cdot 7$ D) $2 \cdot 2 \cdot 2 \cdot 7$

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Provide an appropriate response.

28) Which of the following numbers is a composite number? 28) _____

A) 61 B) 34 C) 53 D) 47

29) Which is a list of the factors of 21? 29) _____

A) 3, 6, 9, 12, 15, 18 B) 2, 4, 6, 8, 10, 12, 14, 16, 18

C) 1, 3, 7, 21 D) 1, 2, 3, 6, 9, 18

30) 1 and 30, 2 and 15, 3 and 10, and 5 and 6 are all factor pairs of which number? 30) _____

A) 3 B) 131,056 C) 60 D) 30

31) Which of the following is not a factor of 348? 31) _____

A) 4 B) 8 C) 2 D) 34

32) Which list contains all the factor pairs of 36? 32) _____

A) 1(36), 2 (18), 3(12) , 4(9), 6(6) B) 1(36), 6(6)

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

33) 15 is not a prime number because 33) _____

A) its factor pairs are 1 × 15, 3 × 5.

B) its factor pairs are 3 × 5.

C) 15 is not divisible by any number except 1 and itself.

D) it has 1 as a factor.

34) Which of the following is a prime number? 34) _____

A) 55 B) 42 C) 39 D) 29

35) List the factor pairs of 36 and write all the factors in order from smallest to largest. 35) _____

A) 1 × 36, 3 × 12, 6 × 6

B) 1 × 36, 6 × 6; 1, 6, 36

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

D) 1 × 36, 2 × 18, 3 × 12, 4 × 9, 6 × 6; 1, 2, 3, 4, 6, 9, 12, 18, 36

Identify the number as prime or composite.

36) 30 36) _____

A) Composite B) Prime

37) 19 37) _____

A) Composite B) Prime

38) 16 38) _____

A) Prime B) Composite

39) 181 39) _____

A) Prime B) Composite

40) 161 40) _____

A) Prime B) Composite

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Find the prime factorization of the number.

41) 6 41) _____

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

42) 65 42) _____

A) $5 \cdot 14$ B) $5 \cdot 13$ C) $5 \cdot 5 \cdot 5$ D) $2 \cdot 5 \cdot 5$

43) 175 43) _____

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

44) 30 44) _____

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

45) 183 45) _____

A) $3 \cdot 59$ B) $3 \cdot 3 \cdot 61$ C) $3 \cdot 61$ D) $3 \cdot 3$

46) 126 46) _____

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

47) 108 47) _____

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

48) 112 48) _____

A) $2 \cdot 2 \cdot 2 \cdot 7 \cdot 7$ B) $2 \cdot 2 \cdot 2 \cdot 7$ C) $2 \cdot 2 \cdot 2 \cdot 2 \cdot 7 \cdot 7$ D) $2 \cdot 2 \cdot 2 \cdot 2 \cdot 7$

Provide an appropriate response.

49) Find the prime factorization of 72. 49) _____

A) $8 \cdot 9$ B) $2 \cdot 2 \cdot 2 \cdot 3 \cdot 3$ C) $2 \cdot 3 \cdot 3 \cdot 4$ D) $1 \cdot 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3$

50) Which list contains both even numbers and odd numbers? 50) _____

A) 2, 4, 6, 8, 10 B) 4, 10, 12, 20, 28 C) 6, 30, 40, 50, 60 D) 5, 10, 15, 20, 40

51) Determine the composite number represented by $2^2(3^3)(5)$. 51) _____

A) 180 B) 540 C) 30 D) 108

52) Which number is neither prime nor composite? 52) _____

A) 4 B) 2 C) 3 D) 1

53) Find the prime factorization of 1,260. 53) _____

A) $1 \cdot 4 \cdot 5 \cdot 7 \cdot 9$ B) $2 \cdot 2 \cdot 2 \cdot 3 \cdot 5 \cdot 5$ C) $2 \cdot 2 \cdot 3 \cdot 3 \cdot 35$ D) $2 \cdot 2 \cdot 3 \cdot 3 \cdot 5 \cdot 7$

54) Write the prime factors of 360 in exponential notation. 54) _____

A) $2 \times 2 \times 3 \times 3 \times 3 \times 5$ B) $2^3 \times 3^2 \times 5$ C) $2^2 \times 3^3 \times 5$ D) $2 \times 2 \times 2 \times 3 \times 3 \times 5$

55) Write the prime factorization of 1,800 using exponential notation. 55) _____

A) $2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 5 \cdot 5$ B) $18 \cdot 100$ C) $2^3 \cdot 9 \cdot 5^2$ D) $2^3 \cdot 3^2 \cdot 5^2$

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56) Write the prime factorization of 120, using exponential notation. 56) _____

A) 2 (2)(2)(3)(5) B) 2^3 (3)(5) C) 2^3 (2)(2)(5) D) 2^4 (3)(5)

57) Write the prime factorization of 1,800, using exponential notation. 57) _____

A) 2 (2)(2)(3)(3)(5)(5) B) 2^3 (3^2)(5^2)

C) 2 (3^2)(10^2) D) 2^2 (3^3)(5^2)

Find the least common multiple.

58) 2, 8 58) _____

A) 8 B) 4 C) 2 D) 16

59) 4, 13 59) _____

A) 26 B) 4 C) 52 D) 17

60) 10, 15 60) _____

A) 15 B) 25 C) 30 D) 150

61) 24, 32 61) _____

A) 56 B) 96 C) 768 D) 32

62) 20, 44 62) _____

A) 64 B) 220 C) 880 D) 44

63) 20, 50 63) _____

A) 50 B) 100 C) 1,000 D) 70

64) 10, 80 64) _____

A) 90 B) 800 C) 80 D) 10

65) 18, 13 65) _____

A) 78 B) 31 C) 234 D) 13

66) 30, 121 66) _____

A) 18,150 B) 726 C) 4,356 D) 3,630

67) 2, 5, 11 67) _____

A) 10 B) 110 C) 18 D) 55

68) 6, 12, 18 68) _____

A) 216 B) 36 C) 18 D) 12

Find the greatest common factor of the numbers.

69) 84 and 42 69) _____

A) 6 B) 14 C) 42 D) 21

70) 960 and 27,000 70) _____

A) 60 B) 360 C) 120 D) 960

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71) 208 and 63 71) _____
A) 91 B) 104 C) 6 D) 1

72) 72 and 16 72) _____
A) 4 B) 8 C) 88 D) 9

73) 38 and 95 73) _____
A) 19 B) 190 C) 18 D) 10

74) 54 and 90 74) _____
A) 18 B) 9 C) 6 D) 2

Provide an appropriate response.

75) Which is the least common multiple of 6 and 9? 75) _____
A) 18 B) 54 C) 6 D) 9

76) Which is the least common multiple of 4 and 15? 76) _____
A) 30 B) 15 C) 60 D) 4

77) Find the greatest common factor of 6 and 15. 77) _____
A) 15 B) 1 C) 3 D) 90

78) Find the greatest common factor of 20 and 28. 78) _____
A) 140 B) 2 C) 1 D) 4

79) Find the least common multiple of 12, 24, and 30. 79) _____
A) 6 B) 12 C) 24 D) 120

80) Find the greatest common factor of 6, 9, and 10. 80) _____
A) 6 B) 3 C) 1 D) 90

81) Which is the least common multiple of 4 and 12? 81) _____
A) 2 B) 12 C) 48 D) 4

82) Find the greatest common factor of 42, 84, and 210. 82) _____
A) 14 B) 7 C) 21 D) 42

83) Which is the least common multiple of 2, 7, and 14? 83) _____
A) 7 B) 196
C) 14 D) none of the above

84) Which is the least common multiple of 12, 18, and 30? 84) _____
A) 6 B) 1,620 C) 6,480 D) 180

85) Find the greatest common factor of 14, 21, and 35. 85) _____
A) 210 B) 10,290 C) 7 D) 2

86) Find the greatest common factor of 26 and 52. 86) _____
A) 676 B) 13 C) 26 D) 1

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Find the equivalent fractions with the indicated denominator.

87) $\frac{12}{6} = \frac{?}{12}$ 87) _____

A) 72 B) 24 C) 12 D) 144

88) $\frac{3}{5} = \frac{?}{20}$ 88) _____

A) 7 B) 15 C) 14 D) 12

89) $\frac{1}{16} = \frac{?}{64}$ 89) _____

A) 64 B) 16 C) 4 D) 1

Reduce the fractions to lowest terms.

90) $\frac{8}{14}$ 90) _____

A) $\frac{4}{14}$ B) $\frac{5}{8}$ C) $\frac{8}{14}$ D) $\frac{4}{7}$

91) $\frac{2}{14}$ 91) _____

A) $\frac{2}{7}$ B) $\frac{2}{14}$ C) $\frac{1}{7}$ D) 7

92) $\frac{28}{32}$ 92) _____

A) $\frac{7}{4}$ B) $\frac{4}{8}$ C) $\frac{7}{8}$ D) $\frac{28}{32}$

93) $\frac{70}{90}$ 93) _____

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

94) $\frac{39}{48}$ 94) _____

A) $\frac{39}{48}$ B) $\frac{13}{3}$ C) $\frac{3}{16}$ D) $\frac{13}{16}$

95) $\frac{70}{98}$ 95) _____

A) $\frac{70}{98}$ B) $\frac{5}{14}$ C) $\frac{14}{7}$ D) $\frac{5}{7}$

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Use the property of proportions to determine whether the pair of fractions is equivalent.

96) $\frac{4}{16}$ and $\frac{8}{32}$ 96) _____

A) not equivalent B) equivalent

97) $\frac{2}{6}$ and $\frac{20}{60}$ 97) _____

A) equivalent B) not equivalent

98) $\frac{5}{8}$ and $\frac{22}{25}$ 98) _____

A) equivalent B) not equivalent

99) $\frac{48}{54}$ and $\frac{40}{45}$ 99) _____

A) not equivalent B) equivalent

Provide an appropriate response.

100) Which of the following list of fractions is equivalent to $\frac{7}{10}$? 100) _____

A) $\frac{14}{20}, \frac{28}{40}, \frac{35}{50}, \frac{49}{70}, \frac{70}{100}$ B) $\frac{14}{10}, \frac{28}{10}, \frac{35}{10}, \frac{49}{10}, \frac{70}{10}$

C) $\frac{7}{20}, \frac{7}{40}, \frac{7}{50}, \frac{7}{70}, \frac{7}{100}$ D) $\frac{14}{20}, \frac{9}{40}, \frac{35}{50}, \frac{49}{70}, \frac{70}{100}$

101) Which of the following fractions is equivalent to $\frac{3}{4}$? 101) _____

A) $\frac{15}{4}$ B) 2 C) $\frac{15}{3}$ D) $\frac{15}{20}$

102) Find the equivalent fraction having the denominator indicated in $\frac{4}{9} = \frac{?}{27}$. 102) _____

A) $\frac{8}{27}$ B) $\frac{4}{27}$ C) $\frac{36}{27}$ D) $\frac{12}{27}$

103) Reduce $\frac{16}{20}$ to lowest terms. 103) _____

A) $\frac{4}{5}$ B) $\frac{16}{20}$ C) $\frac{8}{10}$ D) 1

104) If each inch of an English rule is divided into 64 units, what part of an inch would be measured by 3 of the units? 104) _____

A) $\frac{3}{64}$ inch B) $\frac{3}{8}$ inch C) 3 inches D) $\frac{1}{4}$ inch

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105) Reduce $\frac{24}{36}$ to lowest terms. 105) _____

A) $\frac{2}{3}$ B) $\frac{12}{18}$ C) $\frac{24}{36}$ D) $\frac{4}{6}$

106) Simplify $\frac{48}{96}$. 106) _____

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

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

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

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

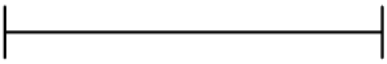
E) none of the above

107) Write 11 ÷ 25 in fraction form. 107) _____

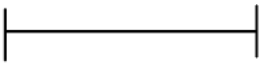
A) $\frac{25}{11}$ B) $\frac{11}{25}$ C) $2\frac{3}{11}$ D) $2\frac{3}{25}$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

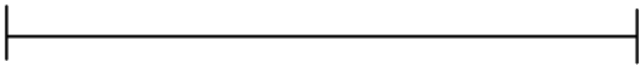
108) Use a U.S. customary ruler to measure the line below to the nearest eighth of an inch: 108) _____



109) Use a U.S. customary ruler to measure the line below to the nearest fourth of an inch: 109) _____



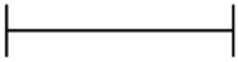
110) Use a U.S. customary ruler to measure the line below to the nearest sixteenth of an inch: 110) _____



111) Use a U.S. customary ruler to measure the line below to the nearest half inch: 111) _____



112) Use a U.S. customary ruler to measure the line below to the nearest sixteenth of an inch: 112) _____



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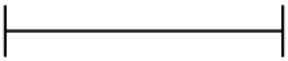
113) Use a U.S. customary ruler to measure the line below to the nearest fourth of an inch: 113) _____

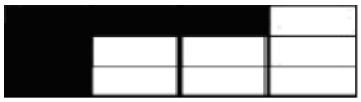


114) Use a U.S. customary ruler to measure the line below to the nearest sixteenth of an inch: 114) _____



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

115) Write a fraction to represent the shaded portion of a given figure. 115) _____



A) $\frac{5}{12}$ B) $\frac{7}{12}$ C) $\frac{1}{4}$ D) $\frac{3}{4}$

116) Write a fraction to represent 4 out of 5 kittens in a litter. 116) _____

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

117) Reduce $\frac{50}{100}$ to lowest terms. 117) _____

A) $\frac{1}{2}$ B) $\frac{5}{10}$ C) $\frac{10}{20}$ D) 0.5

118) Reduce $\frac{24}{75}$ to lowest terms. 118) _____

A) $\frac{6}{25}$ B) $\frac{3}{25}$ C) $\frac{24}{50}$ D) $\frac{8}{25}$

119) Reduce $\frac{72}{180}$ to lowest terms. 119) _____

A) $\frac{6}{15}$ B) $\frac{2}{5}$ C) $\frac{72}{180}$ D) $\frac{36}{90}$

120) Which fraction is equivalent to $\frac{7}{8}$ and has a denominator of 56? 120) _____

A) $\frac{15}{56}$ B) $\frac{56}{64}$ C) $\frac{35}{56}$ D) $\frac{49}{56}$

121) Which fraction is equivalent to $\frac{3}{5}$ and has a denominator of 30? 121) _____

A) $\frac{9}{30}$ B) $\frac{30}{50}$ C) $\frac{3}{30}$ D) $\frac{18}{30}$

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122) Which fraction is equivalent to $\frac{4}{7}$ and has a denominator of 28? 122) _____

A) $\frac{28}{49}$ B) $\frac{16}{28}$ C) $\frac{8}{28}$ D) $\frac{3}{28}$

123) If each inch on a U.S. customary rule is divided into 32 parts, what part of an inch would be indicated by the 5th hash mark in a inch? (Illustrate with a drawing.) 123) _____

A) $\frac{1}{4}$ inch B) $\frac{5}{64}$ inch C) $\frac{5}{16}$ inch D) $\frac{5}{32}$ inch

124) If one inch on a U.S. customary rule is divided into 16 parts, what is the length of each part of the inch? 124) _____

A) $\frac{1}{16}$ inch B) $\frac{1}{17}$ inch C) $\frac{1}{4}$ inch D) 16 inches

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

125) Describe how you can tell if a fraction has been reduced to lowest terms.

126) What is the process used to reduce a fraction?

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

Write the improper fractions as whole or mixed numbers.

127) $\frac{11}{3}$ 127) _____

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

128) $\frac{26}{5}$ 128) _____

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

129) $\frac{11}{3}$ 129) _____

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

130) $\frac{91}{7}$ 130) _____

A) 13 B) 90 C) $\frac{13}{2}$ D) 92

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131) $\frac{43}{3}$ 131) _____

A) $13\frac{1}{7}$ B) $15\frac{1}{3}$ C) $14\frac{1}{3}$ D) $\frac{1}{3}$

132) $\frac{39}{5}$ 132) _____

A) $7\frac{4}{5}$ B) $7\frac{4}{7}$ C) $8\frac{4}{5}$ D) $6\frac{4}{5}$

133) $\frac{11}{6}$ 133) _____

A) $1\frac{5}{6}$ B) $0\frac{5}{6}$ C) $1\frac{5}{7}$ D) $2\frac{5}{6}$

134) $\frac{196}{7}$ 134) _____

A) 28 B) $\frac{28}{2}$ C) 197 D) 195

135) $\frac{55}{7}$ 135) _____

A) $55\frac{7}{55}$ B) $7\frac{6}{7}$ C) $\frac{7}{55}$ D) $55\frac{55}{7}$

136) $\frac{182}{5}$ 136) _____

A) $\frac{5}{182}$ B) $182\frac{182}{5}$ C) $182\frac{5}{182}$ D) $36\frac{2}{5}$

137) $\frac{148}{141}$ 137) _____

A) $1\frac{141}{7}$ B) $141\frac{7}{141}$ C) $1\frac{7}{148}$ D) $1\frac{7}{141}$

138) $\frac{702}{113}$ 138) _____

A) $5\frac{24}{113}$ B) $6\frac{23}{113}$ C) $7\frac{24}{113}$ D) $6\frac{24}{113}$

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Provide an appropriate response.

139) Write $\frac{37}{14}$ as a mixed number. 139) _____

A) $2\frac{1}{7}$

B) $2\frac{9}{14}$

C) $1\frac{23}{14}$

D) $9\frac{2}{14}$

E) none of the above

140) Which of $\frac{5}{12}$, 2, $4\frac{2}{3}$, $\frac{11}{4}$ is an improper fraction? 140) _____

A) $4\frac{2}{3}$ B) $\frac{11}{4}$ C) $\frac{5}{12}$ D) 2

141) Write $\frac{90}{35}$ as a mixed number. 141) _____

A) $3\frac{2}{7}$

B) $7\frac{2}{7}$

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

D) $2\frac{4}{7}$

E) none of the above

142) Convert $\frac{69}{16}$ to a mixed or whole number. 142) _____

A) $4\frac{5}{8}$ B) $4\frac{7}{16}$ C) $4\frac{5}{16}$ D) $\frac{5}{16}$

143) Write $\frac{42}{5}$ as a whole or mixed number. 143) _____

A) $7\frac{7}{5}$ B) $7\frac{2}{5}$ C) $8\frac{7}{5}$ D) $8\frac{2}{5}$

144) Write $\frac{13}{7}$ as a whole or mixed number. 144) _____

A) $2\frac{1}{7}$ B) $1\frac{6}{13}$ C) $1\frac{6}{7}$ D) $\frac{6}{7}$

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145) A denominator of a fraction is 36 and the numerator is 15. Which of the following best describes the fraction? 145) _____

A) The item represented by the fraction is divided into 36 equal parts.

B) When written as a fraction the fraction is in lowest terms.

C) The fraction is best described as an improper fraction.

D) The fraction can be written as $\frac{36}{15}$.

146) Write $\frac{15}{3}$ as a whole or mixed number in lowest terms. 146) _____

A) 5 B) 12 C) $4\frac{3}{3}$ D) $\frac{1}{5}$

147) Write $\frac{54}{12}$ as a whole or mixed number in lowest terms. 147) _____

A) $4\frac{6}{12}$ B) 42 C) $5\frac{1}{2}$ D) $4\frac{1}{2}$

148) Write $\frac{35}{10}$ as a whole or mixed number in lowest terms. 148) _____

A) $3\frac{5}{10}$ B) $30\frac{1}{2}$ C) 25 D) $3\frac{1}{2}$

Write the mixed number as an improper fraction.

149) $7\frac{3}{5}$ 149) _____

A) $\frac{35}{5}$ B) $\frac{35}{3}$ C) $\frac{38}{3}$ D) $\frac{38}{5}$

150) $5\frac{3}{7}$ 150) _____

A) $\frac{38}{3}$ B) $\frac{35}{3}$ C) $\frac{35}{7}$ D) $\frac{38}{7}$

151) $7\frac{4}{7}$ 151) _____

A) $\frac{53}{4}$ B) $\frac{49}{7}$ C) $\frac{53}{7}$ D) $\frac{49}{4}$

152) $6\frac{7}{8}$ 152) _____

A) $\frac{48}{7}$ B) $\frac{55}{7}$ C) $\frac{48}{8}$ D) $\frac{55}{8}$

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153) $2\frac{3}{8}$ 153) _____

A) $\frac{16}{8}$ B) $\frac{19}{3}$ C) $\frac{19}{8}$ D) $\frac{16}{3}$

154) $7\frac{3}{7}$ 154) _____

A) $\frac{49}{7}$ B) $\frac{52}{7}$ C) $\frac{52}{3}$ D) $\frac{49}{3}$

155) $22\frac{2}{3}$ 155) _____

A) 352 B) 38 C) $\frac{68}{3}$ D) $\frac{44}{3}$

Provide an appropriate response.

156) Change $5\frac{2}{3}$ to an improper fraction. 156) _____

A) $\frac{10}{3}$ B) $\frac{2}{3}$ C) $\frac{17}{3}$ D) $\frac{15}{3}$

157) Convert $3\frac{7}{8}$ to an improper fraction. 157) _____

A) $\frac{21}{8}$ B) $\frac{24}{8}$ C) $\frac{31}{8}$ D) $\frac{29}{8}$

158) Change $2\frac{5}{6}$ to an improper fraction. 158) _____

A) $\frac{12}{6}$ B) $\frac{13}{8}$ C) $\frac{11}{6}$ D) $\frac{17}{6}$

159) Change $28\frac{1}{3}$ to an improper fraction. 159) _____

A) $\frac{85}{28}$ B) $\frac{85}{3}$ C) $\frac{31}{3}$ D) $\frac{32}{3}$

160) Change $14\frac{3}{4}$ to an improper fraction. 160) _____

A) $\frac{21}{4}$ B) $\frac{49}{4}$ C) $\frac{46}{4}$ D) $\frac{59}{4}$

161) Change $7\frac{1}{3}$ to an improper fraction. 161) _____

A) $\frac{3}{22}$ B) $3\frac{1}{7}$ C) $\frac{22}{3}$ D) $\frac{11}{3}$

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Change the decimals to their fraction or mixed–number equivalents, and reduce answers to lowest terms.

162) 0.64 162) _____

A) $\frac{1}{64}$ B) $\frac{1}{4{,}096}$ C) $\frac{16}{250}$ D) $\frac{16}{25}$

163) 0.272 163) _____

A) $\frac{1}{73{,}984}$ B) $\frac{1}{272}$ C) $\frac{34}{125}$ D) $2\frac{5}{6}$

164) 0.875 164) _____

A) $\frac{7}{16}$ B) $\frac{7}{8}$ C) $\frac{7}{80}$ D) $\frac{7}{9}$

165) 1.09 165) _____

A) $1\frac{9}{100}$ B) $\frac{9}{1000}$ C) $1\frac{9}{1000}$ D) $\frac{9}{100}$

166) 9.2 166) _____

A) $\frac{23}{25}$ B) $9\frac{1}{5}$ C) $\frac{46}{5}$ D) $9\frac{1}{50}$

Change the decimals to their fraction or mixed–number equivalents, and reduce answers to lowest terms.

167) 0.5 167) _____

A) $\frac{5}{100}$ B) $\frac{1}{2}$ C) $\frac{5}{10}$ D) $\frac{1}{10}$

168) 0.54 168) _____

A) $\frac{1}{2{,}916}$ B) $\frac{27}{500}$ C) $\frac{1}{54}$ D) $\frac{27}{50}$

169) 0.74 169) _____

A) $\frac{37}{50}$ B) $\frac{1}{5{,}476}$ C) $\frac{37}{500}$ D) $\frac{1}{74}$

170) 0.426 170) _____

A) $\frac{1}{181{,}476}$ B) $\frac{213}{50}$ C) $\frac{213}{500}$ D) $\frac{1}{426}$

171) 0.352 171) _____

A) $\frac{1}{352}$ B) $\frac{44}{125}$ C) $\frac{1}{123{,}904}$ D) $\frac{44}{12}$

172) 1.01 172) _____

A) 1 B) $\frac{1}{100}$ C) $\frac{1}{1000}$ D) $1\frac{1}{100}$

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173) 15.8 173) _____

A) $\frac{79}{5}$ B) $15\frac{4}{5}$ C) $1\frac{29}{50}$ D) $1\frac{4}{5}$

Change to decimal numbers.

174) $\frac{6}{8}$ 174) _____

A) 0.74 B) 0.75 C) 0.84 D) 0.64

175) $\frac{3}{4}$ 175) _____

A) 0.8 B) 0.075 C) 0.6 D) 0.75

176) $\frac{47}{100}$ 176) _____

A) 0.047 B) 0.47 C) 0.36 D) 4.7

177) $\frac{15}{16}$ 177) _____

A) 0.9375 B) 0.8375 C) 0.938 D) 0.9475

178) $\frac{7}{20}$ 178) _____

A) 0.45 B) 0.35 C) 0.4 D) 0.25

179) $\frac{9}{25}$ 179) _____

A) 0.36 B) 0.28 C) 0.42 D) 0.16

180) $\frac{7}{40}$ 180) _____

A) 0.135 B) 0.075 C) 0.185 D) 0.175

181) $\frac{28}{125}$ 181) _____

A) 0.224 B) 0.174 C) 0.324 D) 0.244

Provide an appropriate response.

182) Change 0.6 to its fraction or mixed–number equivalent and reduce to lowest terms. 182) _____

A) $\frac{3}{5}$ B) $\frac{6}{10}$ C) $\frac{60}{100}$ D) $\frac{4}{5}$

183) Change 2.5 to its fractional equivalent and reduce to lowest terms. 183) _____

A) $2\frac{1}{2}$ B) $\frac{1}{4}$ C) $\frac{25}{100}$ D) $2\frac{5}{100}$

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184) The length of a screw is 2.625 in. Represent this length as a mixed number. 184) _____

A) $\frac{5}{8}$ in. B) $2\frac{5}{8}$ in. C) $2\frac{3}{8}$ in. D) $2\frac{7}{8}$ in.

185) Change $\frac{9}{10}$ to a decimal. 185) _____

A) 90 B) 0.09 C) 0.9 D) 9

186) Change $\frac{7}{9}$ to a repeating decimal. 186) _____

A) 0.77777778 B) $0.777\frac{7}{9}$ C) $0.\overline{7}$ D) 0.77777777

187) Change 0.024 to its fraction equivalent and reduce to lowest terms. 187) _____

A) $\frac{24}{1000}$ B) $\frac{24}{100}$ C) $\frac{3}{125}$ D) $\frac{6}{25}$

188) The length of a screw is 4.275 in. Represent this length as a mixed number. 188) _____

A) $3\frac{7}{8}$ B) $3\frac{3}{4}$ C) $3\frac{5}{8}$ D) $4\frac{11}{40}$

189) Which fraction represents a measure of 0.3475 ft.? 189) _____

A) $\frac{139}{400}$ B) $\frac{27}{80}$ C) $\frac{3}{16}$ D) $\frac{3475}{100}$

190) Change $1\frac{7}{8}$ to a decimal. 190) _____

A) 9.75 B) 1.875 C) 0.1875 D) 0.975

191) Write $\frac{7}{12}$ as a decimal to the hundredths place with remainder expressed as a fraction. 191) _____

A) $.58\frac{12}{100}$ B) $.583\frac{1}{3}$ C) $.58\frac{1}{25}$ D) $.58\frac{1}{3}$

192) A plan needs a gap of $\frac{5}{8}$ in. What should the gap be in decimal notation? 192) _____

A) 0.63 in. B) 0.625 in. C) 0.125 in. D) 1.6 in.

Find the least common denominator.

193) $\frac{11}{5}$ and $\frac{4}{45}$ 193) _____

A) 50 B) 5 C) 225 D) 45

194) $\frac{7}{15}$ and $\frac{3}{27}$ 194) _____

A) 405 B) 135 C) 42 D) 3

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195) $\frac{7}{56}$ and $\frac{2}{48}$ 195) _____

A) 672 B) 112 C) 168 D) 336

196) $\frac{7}{20}$, $\frac{1}{6}$, and $\frac{13}{30}$ 196) _____

A) 30 B) 20 C) 60 D) 12

Place the correct symbol, >, <, or =, in the blank in the given pair of fractions.

197) $\frac{7}{12}$ ____ $\frac{6}{12}$ 197) _____

A) > B) = C) <

198) $\frac{1}{4}$ ____ $\frac{1}{3}$ 198) _____

A) = B) < C) >

199) $\frac{2}{3}$ ____ $\frac{6}{8}$ 199) _____

A) > B) = C) <

200) $\frac{5}{18}$ ____ $\frac{2}{6}$ 200) _____

A) > B) < C) =

201) $\frac{1}{7}$ ____ $\frac{2}{14}$ 201) _____

A) > B) < C) =

202) $\frac{11}{15}$ ____ $\frac{14}{27}$ 202) _____

A) < B) > C) =

Insert <, >, or = between the pair of numbers to form a true statement.

203) 0.5 ____ $\frac{3}{7}$ 203) _____

A) < B) > C) =

204) $5\frac{11}{14}$ ____ 5.786 204) _____

A) = B) < C) >

205) $\frac{19}{4}$ ____ 4.749 205) _____

A) = B) < C) >

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206) $4\frac{1}{3}$ ___ 4.332 206) _____

A) = B) < C) >

Provide an appropriate response.

207) Which fraction is smallest? 207) _____

A) $\frac{3}{4}$ B) $\frac{6}{7}$ C) $\frac{5}{12}$ D) $\frac{2}{3}$ E) $\frac{1}{2}$

208) A quality control inspector used calipers to measure the diameters of four rods and found them to be 0.256 mm, 0.264 mm, 0.253 mm, and 0.249 mm. Which measure is largest? 208) _____

A) 0.256 mm B) 0.249 mm C) 0.253 mm D) 0.264 mm

209) Which is the common denominator for $\frac{3}{7}$ and $\frac{5}{8}$? 209) _____

A) 7 B) 56 C) 15 D) 8

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

210) Arrange these fractions in order beginning with the smallest: $\frac{3}{4}, \frac{3}{8}, \frac{5}{12}, \frac{6}{7}$ 210) _____

211) If hot dogs come in packages of ten and buns come in packages of eight, what is the minimum number of packages of hot dogs and buns that need to be purchased so that there is an equal number of hot dogs and buns? 211) _____

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

212) Which is the common denominator for $\frac{3}{5}$ and $\frac{7}{15}$? 212) _____

A) 5 B) 15 C) 20 D) 10

213) Arrange $\frac{4}{9}, \frac{1}{3}, \frac{5}{11}$ in order, beginning with the smallest. 213) _____

A) $\frac{1}{3}, \frac{4}{9}, \frac{5}{11}$ B) $\frac{4}{9}, \frac{1}{3}, \frac{5}{11}$ C) $\frac{1}{3}, \frac{5}{11}, \frac{4}{9}$ D) $\frac{5}{11}, \frac{4}{9}, \frac{1}{3}$

214) Which fraction is larger, $\frac{7}{8}$ or $\frac{7}{9}$? 214) _____

A) $\frac{7}{8}$ B) $\frac{7}{9}$

215) Which fraction is larger, $\frac{3}{5}$ or $\frac{5}{6}$? 215) _____

A) $\frac{5}{6}$ B) $\frac{3}{5}$

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216) Which of the following expressions has the greatest value? 216) _____

A) 0.87 B) $\frac{4}{5}$ C) $\frac{7}{8}$ D) $\frac{27}{32}$

217) Which is the common denominator for $\frac{1}{2}$, $\frac{5}{18}$, and $\frac{7}{8}$? 217) _____

A) 100 B) 36 C) 72 D) 2

218) Which is the common denominator for $\frac{7}{8}$, $\frac{5}{12}$, and $\frac{5}{6}$? 218) _____

A) 16 B) 36 C) 24 D) 12

219) Which pair of fractions has the common denominator 48? 219) _____

A) $\frac{3}{14}$ and $\frac{5}{12}$ B) $\frac{7}{36}$ and $\frac{5}{6}$ C) $\frac{5}{8}$ and $\frac{1}{5}$ D) $\frac{1}{6}$ and $\frac{7}{16}$

220) A wrench is marked $\frac{11}{16}$ at one end and $\frac{15}{32}$ at the other end. Which end is larger? 220) _____

A) $\frac{11}{16}$ B) $\frac{15}{32}$

221) Which decimal is larger, 4.35 or 4.336? 221) _____

A) 4.336 B) 4.35

222) A nurse measures and records temperatures of 96.9, 98.5, 95.7, and 97.9. Which temperature is highest? 222) _____

A) 98.5 B) 97.9 C) 95.7 D) 96.9

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

223) Which board is longer? One that is seventy–two and four fifths inches or one that is seventy–two and seven eighths inches? Explain how you know.

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

Perform the indicated operations. Reduce answers to lowest terms and write any improper fractions as whole or mixed numbers.

224) $\frac{2}{11} + \frac{6}{11}$ 224) _____

A) $\frac{8}{11}$ B) $\frac{11}{8}$ C) 1 D) $\frac{8}{22}$

225) $\frac{5}{8} + \frac{1}{8}$ 225) _____

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

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226) $\frac{11}{90} + \frac{17}{90}$ 226) _____

A) $\frac{14}{45}$ B) $\frac{13}{45}$ C) $\frac{13}{44}$ D) $\frac{15}{46}$

227) $\frac{11}{80} + \frac{13}{80}$ 227) _____

A) $\frac{2}{9}$ B) $\frac{2}{10}$ C) $\frac{4}{11}$ D) $\frac{3}{10}$

228) $\frac{7}{4} + \frac{7}{12}$ 228) _____

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

229) $\frac{1}{9} + \frac{1}{6}$ 229) _____

A) $\frac{1}{6}$ B) $\frac{1}{9}$ C) $\frac{5}{18}$ D) $\frac{2}{9}$

230) $\frac{5}{2} + 1$ 230) _____

A) $-\frac{7}{2}$ B) $\frac{9}{8}$ C) $-\frac{9}{4}$ D) $\frac{7}{2}$

231) $\frac{6}{8} + \frac{7}{10} + \frac{8}{18}$ 231) _____

A) $\frac{127}{180}$ B) $\frac{341}{180}$ C) $\frac{7}{40}$ D) $\frac{341}{90}$

232) $9 + 1\frac{2}{7}$ 232) _____

A) $10\frac{2}{7}$ B) $11\frac{2}{7}$ C) $11\frac{1}{7}$ D) $9\frac{1}{7}$

233) $4\frac{6}{11} + 5\frac{6}{11}$ 233) _____

A) $9\frac{1}{11}$ B) $9\frac{6}{11}$ C) $10\frac{1}{11}$ D) $9\frac{12}{11}$

234) $19\frac{1}{3} + 16\frac{1}{6}$ 234) _____

A) $19\frac{1}{2}$ B) $35\frac{1}{2}$ C) $34\frac{1}{2}$ D) $36\frac{1}{2}$

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235) $4\frac{2}{3} + 3\frac{8}{15}$ 235) _____

A) $7\frac{2}{3}$ B) $8\frac{1}{5}$ C) $7\frac{18}{15}$ D) $7\frac{1}{5}$

236) $3\frac{5}{6} + 1\frac{7}{9}$ 236) _____

A) $5\frac{11}{18}$ B) $4\frac{47}{54}$ C) $4\frac{87}{54}$ D) $4\frac{11}{18}$

237) $\frac{1}{2} + 1\frac{2}{3}$ 237) _____

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

238) Lorrie gave $\frac{1}{3}$ of her candy to Jackie and $\frac{1}{5}$ to Paul. What fraction of her candy did she give away? 238) _____

A) of her candy $\frac{2}{5}$ B) of her candy $\frac{4}{15}$

C) $\frac{8}{15}$ of her candy D) of her candy $\frac{1}{15}$

239) A snack mix consists of $\frac{1}{4}$ cup peanuts, $\frac{1}{16}$ cup almonds, and $\frac{1}{8}$ cup cashews. How many cups of nuts are in the mix? 239) _____

A) $\frac{3}{16}$ cups B) $\frac{7}{8}$ cups C) 1 cups D) $\frac{7}{16}$ cups

240) Laura's chocolate store is famous for its "Chocnut", a unique mix of chocolate and nuts. A Supreme box of Chocnut has $2\frac{1}{5}$ pounds of chocolate and $5\frac{3}{5}$ pounds of nuts. A Deluxe box has $4\frac{3}{8}$ pounds of chocolate and $3\frac{2}{5}$ pounds of nuts. John bought 2 Supreme boxes and 2 Deluxe boxes of Chocnut. What is the total weight of his purchase? 240) _____

A) $31\frac{3}{20}$ lb B) $35\frac{3}{20}$ lb C) $21\frac{3}{20}$ lb D) $17\frac{3}{20}$ lb

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Provide an appropriate response.

241) Add: $3\frac{1}{2} + \frac{4}{5}$ 241) _____

A) $4\frac{3}{10}$

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

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

D) $4\frac{7}{10}$

E) none of the above

242) What length of bolt is needed to fasten two pieces of metal each $\frac{3}{4}$ in. thick if a $\frac{3}{16}$ in. lock washer is used and a $\frac{1}{8}$ in. nut is used? 242) _____

A) $1\frac{1}{16}$ in. B) $1\frac{13}{16}$ in. C) $1\frac{11}{16}$ in. D) $\frac{13}{16}$ in.

243) The studs of an outside wall are $5\frac{1}{2}$ in. thick. The inside wallboard is $\frac{5}{8}$ in. thick and the outside covering is $2\frac{15}{16}$ in. thick. What is the total thickness of the wall? 243) _____

A) $9\frac{1}{16}$ in. B) $8\frac{1}{16}$ in. C) $8\frac{15}{16}$ in. D) $9\frac{3}{16}$ in.

244) Perform the indicated operation, leaving the answer in lowest terms: $\frac{1}{7} + \frac{2}{3} =$ 244) _____

A) $\frac{3}{10}$ B) $\frac{12}{21}$ C) $\frac{2}{21}$ D) $\frac{17}{21}$

245) Add: $\frac{5}{9} + \frac{7}{30}$ 245) _____

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

B) $\frac{12}{39}$

C) $\frac{71}{90}$

D) $\frac{17}{45}$

E) none of the above

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246) Perform the indicated operation, leaving the answer in lowest terms: $2\frac{3}{4} + 1\frac{1}{5} =$ 246) _____

A) $1\frac{11}{20}$ B) $2\frac{7}{24}$ C) $3\frac{3}{10}$ D) $3\frac{19}{20}$

247) Add: $2\frac{11}{14} + \frac{9}{35}$ 247) _____

A) $\frac{20}{49}$

B) $3\frac{3}{70}$

C) $\frac{2}{7}$

D) $1\frac{3}{10}$

E) none of the above

248) Add $\frac{7}{8} + \frac{5}{8}$ and reduce answers to lowest terms with improper fractions changed to whole or mixed numbers. 248) _____

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

249) Add $\frac{7}{16} + \frac{3}{4}$ and reduce answers to lowest terms with improper fractions changed to whole or mixed numbers. 249) _____

A) $1\frac{3}{16}$ B) $\frac{1}{2}$ C) $1\frac{1}{4}$ D) $\frac{5}{8}$

250) Add $2\frac{7}{8} + 1\frac{1}{4}$ and reduce answers to lowest terms with improper fractions changed to whole or mixed numbers. 250) _____

A) $3\frac{1}{8}$ B) $3\frac{2}{3}$ C) $5\frac{1}{8}$ D) $4\frac{1}{8}$

251) Joe added the following quarts of oil: $1\frac{1}{2}$ qt. $2\frac{1}{4}$ qt. and $3\frac{1}{2}$ qt. How much oil did Joe add? 251) _____

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

252) Add $6\frac{5}{8} + 6\frac{3}{5}$ and reduce answers to lowest terms with improper fractions changed to whole or mixed numbers. 252) _____

A) $13\frac{9}{40}$ B) $12\frac{9}{40}$ C) $13\frac{8}{13}$ D) $12\frac{8}{13}$

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253) A plumber uses a $\frac{3}{4}$ inch diameter copper tube wrapped with $\frac{11}{32}$ inch insulation. What size hole must be bored for the insulated pipe to pass through? 253) _____

A) $1\frac{7}{16}$

B) $1\frac{15}{32}$

C) $1\frac{3}{32}$

D) $1\frac{5}{16}$

E) none of the above

254) Perform the indicated operation, leaving the answer in lowest terms: $\frac{5}{8} + \frac{11}{16} =$ 254) _____

A) $1\frac{4}{5}$ B) $\frac{2}{3}$ C) $\frac{55}{128}$ D) $1\frac{5}{16}$

255) Perform the indicated operation, leaving the answer in lowest terms: $\frac{7}{9} + 4\frac{5}{6} + 4 =$ 255) _____

A) $9\frac{11}{18}$ B) $15\frac{1}{27}$ C) $8\frac{4}{5}$ D) $2\frac{2}{3}$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

256) A plumber uses a $\frac{3}{8}$ inch pipe with $\frac{9}{32}$ inch insulation. What size hole must be bored for the insulated pipe to pass through? 256) _____

257) Find the mistake in the following problem: $\frac{3}{4} + \frac{5}{6} = \frac{8}{10} = \frac{4}{5}$ 257) _____

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

258) Add $\frac{11}{12} + \frac{7}{8}$ and reduce answers to lowest terms with improper fractions changed to whole or mixed numbers. 258) _____

A) $1\frac{19}{24}$ B) $\frac{9}{10}$ C) $\frac{19}{24}$ D) $1\frac{9}{10}$

259) Add $10 + 4\frac{4}{5}$ and reduce answers to lowest terms with improper fractions changed to whole or mixed numbers. 259) _____

A) $14\frac{4}{5}$ B) $18\frac{4}{5}$ C) $6\frac{4}{5}$ D) $5\frac{1}{5}$

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260) A blueprint calls for a piece of bar stock $7\frac{5}{8}$ in. long. If a tolerance of $\pm\frac{1}{16}$ in. is allowed, what is the longest permissible measurement for the bar stock? 260) _____

A) $7\frac{9}{16}$ B) $7\frac{11}{16}$ C) $7\frac{3}{8}$ D) $7\frac{1}{4}$

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

261) Why is a least common denominator so important in adding fractions?

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

Perform the indicated operations. Reduce answers to lowest terms and write any improper fractions as whole or mixed numbers.

262) $\frac{21}{19} - \frac{3}{19}$ 262) _____

A) 18 B) $\frac{18}{19}$ C) $\frac{19}{18}$ D) $\frac{18}{38}$

263) $\frac{9}{10} - \frac{1}{10}$ 263) _____

A) $\frac{8}{10}$ B) $\frac{8}{0}$ C) $\frac{8}{20}$ D) $\frac{4}{5}$

264) $\frac{33}{39} - \frac{15}{39}$ 264) _____

A) $1\frac{3}{13}$ B) $12\frac{9}{13}$ C) $\frac{6}{13}$ D) $\frac{3}{13}$

265) $\frac{7}{8} - \frac{1}{10}$ 265) _____

A) $\frac{31}{40}$ B) $\frac{3}{5}$ C) $\frac{62}{80}$ D) $\frac{3}{20}$

266) $13\frac{1}{7} - 5\frac{6}{7}$ 266) _____

A) $7\frac{1}{7}$ B) $18\frac{2}{7}$ C) $7\frac{2}{7}$ D) $17\frac{2}{7}$

267) $12\frac{1}{2} - 3\frac{4}{5}$ 267) _____

A) $9\frac{7}{10}$ B) $8\frac{7}{10}$ C) $8\frac{17}{10}$ D) 9

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268) $47\frac{1}{16} - 16\frac{1}{12}$ 268) _____

A) $31\frac{1}{48}$ B) $31\frac{47}{48}$ C) $30\frac{47}{48}$ D) $30\frac{15}{16}$

269) $19\frac{1}{7} - \frac{10}{35}$ 269) _____

A) $18\frac{6}{7}$ B) $19\frac{6}{7}$ C) 18 D) $17\frac{6}{7}$

270) $\frac{1}{6} - \frac{1}{11}$ 270) _____

A) $\frac{5}{6}$ B) $\frac{1}{6}$ C) $\frac{5}{66}$ D) $\frac{1}{66}$

271) $\frac{6}{7} - \frac{5}{8}$ 271) _____

A) $\frac{13}{56}$ B) $\frac{1}{56}$ C) $\frac{1}{7}$ D) $\frac{13}{7}$

272) $\frac{3}{4} - \frac{5}{12}$ 272) _____

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

273) $\frac{11}{15} - \frac{2}{25}$ 273) _____

A) $\frac{1}{5}$ B) $\frac{9}{10}$ C) $\frac{49}{75}$ D) $\frac{9}{25}$

274) From a $\frac{7}{8}$ -lb package of ground beef, a $\frac{1}{3}$ -lb hamburger was made. How much ground beef is left in the package? 274) _____

A) $\frac{1}{2}$ lb B) $\frac{5}{6}$ lb C) $\frac{1}{4}$ lb D) $\frac{13}{24}$ lb

275) On average, $\frac{3}{4}$ of a teenager's day is spent at school or sleeping. If $\frac{1}{3}$ is spent sleeping, what fraction is spent in school? 275) _____

A) $\frac{1}{6}$ of their day B) $\frac{1}{3}$ of their day C) $\frac{5}{12}$ of their day D) $\frac{2}{3}$ of their day

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276) From a $\frac{11}{10}$ -lb wheel of cheese, a $\frac{3}{5}$ -lb piece was served. How much cheese remained on the wheel? 276) _____

A) $\frac{8}{5}$ lb B) $\frac{1}{2}$ lb C) $\frac{3}{5}$ lb D) $\frac{4}{5}$ lb

277) In a mathematics course, $\frac{7}{8}$ of a student's grade is from exams and quizzes. If $\frac{1}{3}$ of the grade is from quizzes, what fraction is from exams? 277) _____

A) $\frac{1}{4}$ from exams B) $\frac{13}{24}$ from exams C) $\frac{1}{2}$ from exams D) $\frac{5}{6}$ from exams

278) In a recent survey, $\frac{11}{20}$ of those surveyed said pizza is their favorite food, while $\frac{1}{10}$ said pasta was their favorite. What fraction selected a food other than these two as their favorite food? 278) _____

A) $\frac{2}{5}$ chose other B) $\frac{9}{20}$ chose other C) $\frac{7}{20}$ chose other D) $\frac{1}{2}$ chose other

279) Last week, Samantha ran 11 miles. This week, she ran $9\frac{2}{3}$ miles. How much more did she run last week? 279) _____

A) $13\frac{1}{3}$ miles B) $20\frac{2}{3}$ miles C) $1\frac{15}{29}$ miles D) $1\frac{1}{3}$ miles

280) Jerry caught a fish that weighed $14\frac{4}{7}$ pounds. Pat caught a fish that weighed $6\frac{6}{7}$ pounds. How much more did Jerry's fish weigh than Pat's fish? 280) _____

A) $7\frac{5}{7}$ pounds B) $7\frac{4}{7}$ pounds C) $19\frac{5}{7}$ pounds D) $20\frac{5}{7}$ pounds

Provide an appropriate response.

281) Subtract: $\frac{5}{12} - \frac{7}{30}$ 281) _____

A) $\frac{11}{30}$

B) $\frac{7}{60}$

C) $\frac{7}{30}$

D) $\frac{11}{60}$

E) none of the above

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282) Ted has a wall anchor that measures $1\frac{5}{16}$ inches. The screw he wishes to use is $1\frac{1}{4}$ inches. By how much is the anchor longer or shorter than the screw? 282) _____

A) $\frac{1}{8}$ in. B) $\frac{1}{4}$ in. C) $\frac{1}{16}$ in. D) 1 in.

283) A fence board is 96 inches long. $2\frac{3}{4}$ inches is cut off. The saw blade takes off an additional $\frac{1}{8}$ inches. How long is the finished board? 283) _____

A) $94\frac{1}{4}$ inches B) $93\frac{1}{8}$ inches C) $94\frac{1}{8}$ inches D) $93\frac{1}{4}$ inches

284) Subtract: $9\frac{3}{8} - 3\frac{7}{12}$ 284) _____

A) $5\frac{19}{24}$

B) $5\frac{23}{24}$

C) $6\frac{5}{12}$

D) $5\frac{7}{12}$

E) none of the above

285) Perform the indicated operation, leaving the answer in lowest terms: $6\frac{1}{6} - 2\frac{5}{12} =$ 285) _____

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

286) Perform the indicated operation, leaving the answer in lowest terms: $\frac{2}{3} - \frac{1}{7} =$ 286) _____

A) $\frac{3}{10}$ B) $-\frac{1}{4}$ C) $\frac{11}{21}$ D) $\frac{1}{4}$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

287) Six rods $3\frac{1}{16}$ inches long were cut from a piece of iron rod 41 inches long. Allow $\frac{1}{8}$ inch waste for each cut. What was the length of the piece left? 287) _____

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

288) Subtract: $\frac{5}{12} - \frac{7}{18}$ 288) _____

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

B) $\frac{7}{18}$

C) $\frac{7}{36}$

D) $\frac{13}{24}$

E) none of the above

289) Mary cut $4\frac{3}{4}$ sq. yd. of cloth from $5\frac{1}{2}$ sq. yd. of cloth. How many sq. yd. of cloth remain? 289) _____

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

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

290) How long of a bolt is needed to fasten two pieces of metal each $\frac{11}{16}$ inches thick if a $\frac{7}{64}$ inch thick nut is used? The nut must be flush with the bolt after tightening. 290) _____

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

291) Subtract and reduce when necessary: $\frac{5}{16} - \frac{3}{16}$ 291) _____

A) $\frac{1}{8}$ B) $\frac{1}{2}$ C) $\frac{2}{0}$ D) $\frac{1}{16}$

292) Subtract and reduce when necessary: $\frac{11}{16} - \frac{5}{8}$ 292) _____

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

293) Subtract and reduce when necessary: $6\frac{7}{8} - 5$ 293) _____

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

294) Subtract and reduce when necessary: $3\frac{7}{9} - 1\frac{5}{9}$ 294) _____

A) $2\frac{1}{9}$ B) $3\frac{2}{9}$ C) $2\frac{2}{9}$ D) $2\frac{2}{0}$

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SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

295) A machine part is fabricated to be $3\frac{5}{8}$ inch long with a tolerance of $\pm\frac{1}{32}$inch. What is the smallest and largest the part can be? 295) _____

296) A machine part is fabricated to be $8\frac{1}{4}$ inch long with a tolerance of $\pm\frac{1}{32}$inch. What is the smallest and largest the part can be? 296) _____

297) Find the mistake in the following problem: 297) _____

$2\frac{1}{2} - 1\frac{2}{3} = 2\frac{3}{6} - 1\frac{4}{6} = 1\frac{1}{6}$

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

298) Perform the indicated operation in the expression $2\frac{3}{4} - 1\frac{1}{5} =$ 298) _____

A) $3\frac{3}{10}$ B) $3\frac{19}{20}$ C) $1\frac{11}{20}$ D) $2\frac{7}{24}$

299) Subtract and reduce when necessary: $\frac{9}{12} - \frac{2}{3}$ 299) _____

A) $\frac{1}{12}$ B) $\frac{11}{15}$ C) $\frac{7}{9}$ D) $\frac{7}{12}$

300) Subtract and reduce when necessary: $\frac{7}{8} - \frac{9}{12}$ 300) _____

A) $\frac{1}{12}$ B) $\frac{1}{2}$ C) $\frac{1}{8}$ D) $\frac{1}{6}$

301) Subtract and reduce when necessary: $\frac{7}{8} - \frac{2}{3}$ 301) _____

A) $\frac{1}{24}$ B) 1 C) $\frac{5}{12}$ D) $\frac{5}{24}$

302) Subtract and reduce when necessary: $12\frac{9}{32} - 3\frac{15}{32}$ 302) _____

A) $9\frac{13}{16}$ B) $9\frac{-3}{16}$ C) $9\frac{3}{16}$ D) $8\frac{13}{16}$

303) Subtract and reduce when necessary: $31\frac{7}{8} - 20\frac{15}{16}$ 303) _____

A) $11\frac{1}{2}$ B) $10\frac{7}{8}$ C) $10\frac{15}{16}$ D) $11\frac{1}{16}$

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304) A concrete foundation includes $10\frac{1}{3}$ inches fill. If the foundation is to be 32 inches thick, how thick must the concrete layer be? 304) _____

A) $21\frac{2}{3}$ in. B) $22\frac{2}{3}$ in. C) $22\frac{1}{3}$ in. D) $21\frac{1}{3}$ in.

Multiply and reduce answers to lowest terms. Write improper fractions as whole or mixed numbers.

305) $\frac{1}{9} \cdot \frac{1}{6}$ 305) _____

A) $\frac{2}{15}$ B) $\frac{1}{54}$ C) $\frac{3}{2}$ D) 54

306) $\frac{1}{6} \cdot \frac{3}{7}$ 306) _____

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

307) $48 \cdot \frac{5}{6}$ 307) _____

A) 35 B) $\frac{240}{6}$ C) $\frac{2309}{270}$ D) 40

308) $\frac{5}{13} \cdot \frac{39}{35}$ 308) _____

A) $\frac{175}{507}$ B) $\frac{15}{7}$ C) $\frac{3}{7}$ D) $\frac{7}{3}$

309) $\frac{2}{5} \cdot \frac{1}{7} \cdot \frac{4}{5}$ 309) _____

A) $\frac{2}{175}$ B) $\frac{8}{17}$ C) $\frac{56}{25}$ D) $\frac{8}{175}$

310) $\frac{5}{7} \cdot \frac{4}{7} \cdot \frac{2}{9}$ 310) _____

A) $\frac{1}{21}$ B) $\frac{40}{441}$ C) $\frac{441}{40}$ D) $\frac{20}{49}$

311) $4\frac{2}{3} \cdot 1\frac{5}{7}$ 311) _____

A) 9 B) 11 C) $4\frac{10}{21}$ D) 8

312) $7\frac{1}{2} \cdot 3\frac{1}{3}$ 312) _____

A) 26 B) $21\frac{1}{6}$ C) 24 D) 25

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313) $2\frac{1}{4} \cdot 4$ 313) _____

A) 9 B) $6\frac{1}{4}$ C) 32 D) 8

314) $4 \cdot 7\frac{11}{20}$ 314) _____

A) $28\frac{11}{20}$ B) $30\frac{3}{5}$ C) $30\frac{1}{5}$ D) $11\frac{1}{5}$

315) $3\frac{3}{7} \cdot 2\frac{1}{3}$ 315) _____

A) 7 B) 4 C) 8 D) 6

316) There are 65 students in Jose's class. $\frac{2}{5}$ of the students are science majors. How many students are science majors? 316) _____

A) 24 B) 130 C) 39 D) 26

317) Tyler and his sister arranged a party for their father's birthday. The total cost of the party was $480. Tyler paid $\frac{1}{4}$ of the total cost and his sister paid the remainder. How much did Tyler pay? 317) _____

A) $130 B) $140 C) $120 D) $135

318) When Maria finished medical school she owed $51,000 in student loans. She repaid $\frac{2}{3}$ of the total amount within two years of graduating. How much did she repay within two years of graduating? 318) _____

A) $30,600 B) $3,400 C) $34,000 D) $37,400

319) A storehouse stores 515 different inventory items. $\frac{4}{5}$ of these items are perishable. How many of the inventory items are perishable? 319) _____

A) 103 items B) 408 items C) 412 items D) 416 items

320) A restaurant has a capacity of 153 patrons. If the restaurant is $\frac{4}{9}$ full, how many patrons are at the restaurant? 320) _____

A) 17 patrons B) 72 patrons C) 64 patrons D) 68 patrons

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Provide an appropriate response.

321) Multiply: $\frac{5}{9} \times \frac{3}{10} \times \frac{3}{4}$ 321) _____

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

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

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

D) $\frac{1}{8}$

E) none of the above

322) Perform the indicated operation, leaving the answer in lowest terms: $2\frac{3}{4} \times 1\frac{1}{5} =$ 322) _____

A) $3\frac{19}{20}$ B) $3\frac{3}{10}$ C) $1\frac{11}{20}$ D) $2\frac{7}{24}$

323) If you multiply a proper fraction by a proper fraction, the result is a number that is 323) _____

A) larger than either of the factors. B) smaller than either of the factors.

C) smaller than the larger factor only. D) equal in size to the largest factor.

324) Multiply: $\frac{8}{9} \times \frac{3}{4} \times \frac{3}{10}$ 324) _____

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

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

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

D) $\frac{10}{27}$

E) none of the above

325) Perform the indicated operation, leaving the answer in lowest terms: $\frac{2}{3} \times \frac{1}{7} =$ 325) _____

A) $\frac{17}{21}$ B) $\frac{11}{21}$ C) $\frac{14}{23}$ D) $\frac{2}{21}$

326) Perform the indicated operation, leaving the answer in lowest terms: $2\frac{5}{7} \times 4\frac{2}{3} =$ 326) _____

A) $8\frac{1}{3}$ B) $8\frac{10}{21}$ C) $7\frac{8}{21}$ D) $12\frac{2}{3}$

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327) Perform the indicated operation, leaving the answer in lowest terms: $3\frac{1}{12} \times \frac{4}{9} =$ 327) _____

A) $3\frac{1}{27}$ B) $\frac{1}{9}$ C) $2\frac{20}{21}$ D) $1\frac{10}{27}$

328) Perform the indicated operation, leaving the answer in lowest terms: $7 \times \frac{5}{6} =$ 328) _____

A) $\frac{70}{12}$ B) $\frac{5}{42}$ C) 2 D) $5\frac{5}{6}$

329) Multiply: $1\frac{2}{3} \times 3\frac{1}{5}$ 329) _____

A) $5\frac{1}{3}$

B) $4\frac{1}{2}$

C) $3\frac{14}{15}$

D) $3\frac{11}{15}$

E) none of the above

330) Multiply and reduce answers to lowest terms: $\frac{1}{4} \times \frac{7}{16}$ 330) _____

A) $\frac{7}{8}$ B) $\frac{7}{4}$ C) $\frac{7}{64}$ D) $\frac{7}{16}$

331) Multiply and reduce answers to lowest terms: $\frac{7}{8} \times \frac{15}{32}$ 331) _____

A) $\frac{11}{16}$ B) $\frac{105}{4}$ C) $\frac{105}{256}$ D) $\frac{105}{32}$

332) Multiply, reduce answers to lowest terms and convert improper fractions to whole or mixed numbers: $9 \times 3\frac{4}{5}$ 332) _____

A) $27\frac{4}{5}$ B) $34\frac{36}{45}$ C) $34\frac{1}{5}$ D) $27\frac{36}{5}$

333) Multiply, reduce answers to lowest terms and convert improper fractions to whole or mixed numbers: $5\frac{3}{8} \times 3\frac{5}{6}$ 333) _____

A) $15\frac{7}{24}$ B) $15\frac{5}{16}$ C) $20\frac{29}{24}$ D) $20\frac{29}{48}$

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SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

334) Standard typing paper is $8\frac{1}{2}$ inches wide by 11 inches long. If the margin all around the edge of the paper is a uniform one inch, what is the area of the paper that can be printed on? (Note: Area = Length × Width) 334) _____

335) A plumber needs 6 pieces of pipe each $16\frac{5}{8}$ inches long. If $\frac{1}{8}$ inch waste is allowed for each cut, what length pipe must the plumber have? 335) _____

336) A metal bar is cut into six pieces each $3\frac{3}{8}$ inches long. Each cut wastes $\frac{1}{16}$ inch. Determine the length of the original bar. 336) _____

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

337) The staircase in a house has 15 risers, each one $7\frac{5}{8}$ inches high. What is the total rise of the steps? 337) _____

A) $10\frac{5}{8}$ inches B) $105\frac{5}{8}$ inches C) $114\frac{3}{8}$ inches D) $119\frac{3}{8}$ inches

338) Multiple and reduce answers to lowest terms: $\frac{7}{8}\left(\frac{3}{14}\right)$ 338) _____

A) $\frac{3}{8}$ B) $\frac{3}{16}$ C) $\frac{3}{4}$ D) $\frac{21}{112}$

339) A fuel tank that holds 90 liters (L) of fuel is $\frac{2}{3}$ full. How many liters of fuel are in the tank? 339) _____

A) 60 L B) $90\frac{2}{3}$ L

C) 135 L D) none of the above

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

340) An alloy weighing 42 pounds is $\frac{2}{5}$ copper, $\frac{1}{5}$ silver, and $\frac{2}{5}$ other material. How many pounds of silver are in the alloy? Explain the process you used to find the answer.

341) A mixture of dirt, sand, etc. that weighs 350 pounds is 3 parts dirt, 1 part sand, 2 parts top soil, and 2 parts peat. How many pounds of dirt are in the mixture? Explain the process you used to find the answer.

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

Raise the fraction to the indicated power.

342) $\left(\frac{1}{8}\right)^2$ 342) _____

A) $\frac{1}{4}$ B) $\frac{1}{16}$ C) $\frac{1}{10}$ D) $\frac{1}{64}$

343) $\left(\frac{4}{9}\right)^2$ 343) _____

A) $1\frac{7}{9}$ B) $\frac{16}{81}$ C) $\frac{4}{81}$ D) $2\frac{1}{4}$

344) $\left(\frac{4}{9}\right)^3$ 344) _____

A) $2\frac{1}{4}$ B) $\frac{4}{729}$ C) $7\frac{1}{9}$ D) $\frac{64}{729}$

345) $\left(\frac{7}{9}\right)^4$ 345) _____

A) $\frac{2401}{6561}$ B) $1\frac{2}{7}$ C) $266\frac{7}{9}$ D) $\frac{7}{6561}$

346) $\left(\frac{7}{8}\right)^2$ 346) _____

A) $\frac{7}{4}$ B) $\frac{49}{8}$ C) $\frac{49}{64}$ D) $\frac{7}{32}$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Provide an appropriate response.

347) Raise to the indicated power: $\left(\frac{2}{3}\right)^2$ 347) _____

348) Raise to the indicated power: $\left(\frac{3}{8}\right)^2$ 348) _____

349) Raise to the indicated power: $\left(\frac{1}{4}\right)^3$ 349) _____

350) Raise to the indicated power: $\left(\frac{2}{5}\right)^3$ 350) _____

351) Raise to the indicated power: $\left(1\frac{1}{3}\right)^2$ 351) _____

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352) Raise to the indicated power: $\left(2\frac{1}{5}\right)^2$ 352) _____

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

353) Raise to the indicated power: $\left(\frac{4}{9}\right)^2$ 353) _____

A) $\frac{8}{18}$ B) $\frac{16}{81}$ C) $\frac{8}{9}$ D) $\frac{2}{3}$

354) Perform the indicated operation, leaving the answer in lowest terms: $\left(\frac{3}{5}\right)^2 =$ 354) _____

A) $\frac{9}{5}$ B) $\frac{3}{5}$ C) $\frac{9}{25}$ D) $\frac{6}{25}$

355) Perform the indicated operation, leaving the answer in lowest terms: $\left(\frac{5}{7}\right)^2 =$ 355) _____

A) $\frac{10}{49}$ B) $\frac{25}{14}$ C) $\frac{25}{49}$ D) $\frac{5}{7}$

356) Raise to the indicated power: $\left(\frac{3}{5}\right)^2$ 356) _____

A) $\frac{6}{10}$ B) $\frac{9}{25}$ C) $\frac{9}{10}$ D) $\frac{6}{25}$

357) Raise to the indicated power: $\left(\frac{2}{3}\right)^3$ 357) _____

A) $\frac{8}{27}$ B) $\frac{6}{27}$ C) $\frac{6}{9}$ D) $\frac{2}{3}$

358) Raise to the indicated power: $\left(\frac{2}{5}\right)^3$ 358) _____

A) $\frac{9}{15}$ B) $\frac{6}{125}$ C) $\frac{8}{125}$ D) $\frac{6}{15}$

359) Raise to the indicated power: $\left(1\frac{1}{2}\right)^2$ 359) _____

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

Write the reciprocal of the number.

360) $\frac{5}{17}$ 360) _____

A) $-\frac{5}{17}$ B) $\frac{17}{5}$ C) 17 D) $\frac{5}{17}$

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361) 4 361) _____

A) $\frac{1}{4}$ B) $-\frac{1}{4}$ C) does not exist D) –4

362) $\frac{1}{15}$ 362) _____

A) $-\frac{1}{15}$ B) –1 C) 15 D) –15

Divide and reduce to lowest terms.

363) $\frac{3}{4} \div \frac{6}{7}$ 363) _____

A) $\frac{14}{9}$ B) $\frac{7}{8}$ C) $\frac{9}{14}$ D) $\frac{8}{7}$

364) $\frac{16}{5} \div 2$ 364) _____

A) $\frac{32}{5}$ B) 8 C) $\frac{5}{8}$ D) $\frac{8}{5}$

365) $\frac{5}{11} \div \frac{15}{22}$ 365) _____

A) $\frac{3}{2}$ B) $\frac{75}{242}$ C) $\frac{2}{3}$ D) $\frac{10}{3}$

366) $\left(2\right) \div \left(\frac{19}{11}\right)$ 366) _____

A) $\frac{38}{11}$ B) $\frac{25}{14}$ C) $-\frac{2}{19}$ D) $\frac{22}{19}$

367) $6 \div \frac{2}{3}$ 367) _____

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

Divide and reduce to lowest terms.

368) $5\frac{3}{7} \div \frac{2}{7}$ 368) _____

A) 18 B) 19 C) 20 D) $17\frac{1}{2}$

369) $4\frac{1}{9} \div 3\frac{5}{6}$ 369) _____

A) $2\frac{5}{69}$ B) $1\frac{6}{69}$ C) $1\frac{5}{68}$ D) $1\frac{5}{69}$

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370) $30 \div 1\frac{1}{4}$ 370) _____

A) $22\frac{1}{2}$ B) 25 C) 24 D) 23

371) $5\frac{5}{8} \div 9$ 371) _____

A) $\frac{6}{8}$ B) $\frac{5}{7}$ C) $\frac{4}{8}$ D) $\frac{5}{8}$

Provide an appropriate response.

372) Divide: $\frac{8}{7} \div \frac{10}{6}$ 372) _____

A) $\frac{15}{24}$

B) $\frac{5}{12}$

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

D) $\frac{24}{35}$

E) none of the above

373) Divide: $1\frac{3}{4} \div 2\frac{1}{8}$ 373) _____

A) $\frac{13}{15}$

B) $\frac{15}{13}$

C) $\frac{17}{14}$

D) $\frac{14}{17}$

E) none of the above

374) Perform the indicated operation, leaving the answer in lowest terms: $2\frac{2}{3} \div \frac{1}{2} =$ 374) _____

A) $\frac{16}{3}$ B) $\frac{4}{3}$ C) $\frac{3}{4}$ D) $\frac{3}{16}$

375) Perform the indicated operation, leaving the answer in lowest terms: $\frac{5\frac{2}{3}}{1\frac{1}{9}} =$ 375) _____

A) $5\frac{2}{27}$ B) $5\frac{1}{10}$ C) $\frac{10}{51}$ D) $\frac{5}{6}$

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376) If you divide a large fraction by another smaller fraction, the result is a number that is: 376) _____

A) equal to only one of the fractions.
B) halfway between the two fractions.
C) larger than either of the fractions.
D) smaller than either of the fractions.

377) You have a board that is 42 inches wide and would like to position 6 smaller boards each 5 inches wide across the big board so that there is no "margin" on either side, but they are equally spaced across the board. How much space should be allowed between each of the small boards? 377) _____

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

378) What is the reciprocal of 4.3? 378) _____

A) $\frac{10}{43}$ B) $\frac{4}{3}$ C) $\frac{34}{10}$ D) $\frac{3}{4}$

379) Perform the indicated operation, leaving the answer in lowest terms: $\frac{2}{3} \div \frac{1}{7} =$ 379) _____

A) $4\frac{2}{3}$ B) $\frac{11}{21}$ C) $\frac{2}{21}$ D) $\frac{17}{21}$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

380) Perform the indicated operations and reduce: $\dfrac{4\frac{9}{16} - 3\frac{1}{8}}{2\frac{1}{4} + 1\frac{3}{16}} =$ 380) _____

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

381) Divide: $2\frac{7}{10} \div 3\frac{2}{5}$ 381) _____

A) $\frac{37}{50}$
B) $\frac{13}{15}$
C) $\frac{27}{34}$
D) $\frac{15}{17}$
E) none of the above

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

382) Perform the indicated operations and reduce: $\dfrac{5\frac{1}{4} - 3\frac{1}{2}}{4\frac{1}{4} - 2\frac{1}{2}} =$ 382) _____

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

383) Divide: $\frac{8}{9} \div \frac{4}{3}$ 383) _____

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

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

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

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

E) none of the above

384) Which description best describes $\frac{\frac{5}{12}}{\frac{7}{11}}$? 384) _____

A) Complex fraction
B) Mixed–decimal fraction
C) Decimal fraction
D) Proper fraction

385) Give the reciprocal of $\frac{7}{9}$. 385) _____

A) 1 B) $\frac{9}{7}$ C) $-\frac{7}{9}$ D) $\frac{7}{9}$

386) Give the reciprocal of 9. 386) _____

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

387) Divide and reduce answers to lowest terms, converting improper fractions to whole or mixed numb 387) _____

$\frac{6}{7} \div \frac{10}{21}$

A) $\frac{20}{49}$ B) $2\frac{9}{20}$ C) $\frac{5}{9}$ D) $1\frac{4}{5}$

388) Divide and reduce answer to lowest terms converting improper fractions to whole or mixed numbe 388) _____

$6 \div 3\frac{1}{3}$

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

389) Divide and reduce answer to lowest terms. Convert improper fractions to whole or mixed numbers: 389) _____

$6 \div \frac{2}{3}$

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

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390) Divide and reduce answer to lowest terms. Convert improper fractions to whole or mixed numbers: 390) _____

$4 \div \frac{5}{6}$

A) $3\frac{1}{3}$ B) 5 C) $4\frac{4}{5}$ D) $\frac{5}{24}$

391) Divide and reduce answer to lowest terms. Convert improper fraction to whole or mixed number: 391) _____

$$\frac{\frac{3}{8}}{\frac{5}{7}}$$

A) $\frac{10}{49}$ B) $\frac{2}{5}$ C) $4\frac{9}{10}$ D) $\frac{21}{40}$

392) Divide and reduce answer to lowest terms. Convert improper fractions to whole or mixed number: 392) _____

$$\frac{\frac{3}{8}}{6}$$

A) $\frac{1}{4}$ B) 4 C) 16 D) $\frac{1}{16}$

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

393) Five boards $3\frac{3}{4}$ inches long are cut from a piece of board that is 41 inches long. Allow $\frac{1}{8}$ inch waste for each cut. What was the length of the piece left? 393) _____

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

394) Each shelf in a floor–to–ceiling bookshelf needs a strip of molding $32\frac{3}{16}$ inches cut from a length of molding measuring $225\frac{5}{16}$ inches long. If the length of the shelf includes the saw cut, how many shelves are in this bookshelf? 394) _____

A) 6 B) 7 C) 9 D) 8

395) An I–beam measures 14 ft long. How many whole $2\frac{1}{16}$ ft pieces can be cut from this length? 395) _____

A) 6 B) 7 C) 8 D) 5

396) Give the reciprocal of $5\frac{3}{5}$. 396) _____

A) $\frac{-5}{28}$ B) $\frac{28}{5}$ C) $\frac{5}{28}$ D) $-5\frac{3}{5}$

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397) Give the reciprocal of $\frac{1}{8}$. 397) _____

A) 8 B) $\frac{-1}{8}$ C) –8 D) 1

398) Give the reciprocal of $5\frac{3}{4}$. 398) _____

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

399) Divide and reduce answer to lowest terms, converting improper fractions to whole or mixed numbers: $\frac{1}{6} \div \frac{1}{2}$ 399) _____

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

400) Three–fourths of a mile is divided into $\frac{3}{8}$ mile segments. How many sections are in the $\frac{3}{4}$ mile? 400) _____

A) 6 segments B) 2 segments C) $\frac{1}{2}$ segment D) $3\frac{5}{9}$ segments

401) How many $2\frac{1}{4}$ foot lengths can be cut from a board 18 feet long? 401) _____

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

402) How many pieces of fabric that are each $1\frac{2}{3}$ yards can be cut from a bolt that has 10 yards of fabric? 402) _____

A) 5 pieces B) $16\frac{2}{3}$ pieces C) 4 pieces D) 6 pieces

403) A stack of books measures $22\frac{1}{2}$ inches high and each book is $\frac{5}{8}$ inch thick. How many books are in the stack? 403) _____

A) 14 books B) 36 books C) 22 books D) 13 books

404) Use a calculator to divide and reduce answers to lowest terms, converting improper fractions to whole or mixed numbers: $\frac{12\frac{1}{2}}{100}$ 404) _____

A) $\frac{1}{8}$ B) $\frac{3}{40}$ C) $\frac{1}{2}$ D) $\frac{3}{25}$

Perform the indicated operations using a calculator.

405) 0.58 ÷ 442 405) _____

A) 0.00131 B) 762 C) 0.0013 D) 0.001312

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406) $\frac{0.0836}{2.241} - 0.0756$ 406) _____

A) −0.0383 B) 0.11 C) 0.1129 D) −0.038

407) $\frac{0.7531 \times 0.74126}{2.132}$ 407) _____

A) 2.098 B) 2.10 C) 0.2618 D) 0.262

Provide an appropriate response.

408) Use a calculator to perform the calculations: 408) _____

$$\frac{3\frac{3}{4} + 1\frac{1}{2}}{5 - \frac{4}{5}}$$

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

C) $1\frac{1}{84}$ D) none of the above

409) Use a calculator to perform the calculations: 409) _____

$$\frac{3\frac{5}{8} + 1\frac{3}{4}}{7\frac{2}{3} - 1\frac{5}{6}}$$

A) $\frac{87}{184}$ B) $\frac{129}{148}$ C) $\frac{129}{140}$ D) $\frac{3}{5}$

410) Perform the indicated operation, leaving the answer in lowest terms: $\frac{4}{5} - \left(\frac{2}{3}\right)^2 =$ 410) _____

A) $\frac{16}{45}$ B) $\frac{44}{225}$ C) $\frac{2}{15}$ D) $\frac{2}{5}$

411) Three books measuring $1\frac{1}{2}$, $\frac{11}{15}$, and $\frac{5}{6}$ are placed into one stack and shrink wrapped. Use a calculator to find the total thickness of the packaged stack. 411) _____

A) $1\frac{13}{30}$ B) $3\frac{1}{15}$ C) $1\frac{17}{23}$ D) $2\frac{1}{15}$

412) Use a calculator to add $6\frac{3}{4} + 2\frac{1}{3} + \frac{7}{12}$. Write answer in lowest terms with improper fractions changed to whole or mixed numbers. 412) _____

A) $8\frac{11}{12}$ B) $9\frac{2}{3}$ C) $8\frac{11}{19}$ D) $9\frac{2}{9}$

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413) Use a calculator to multiply and reduce answers to lowest terms: $\frac{9}{12}\left(\frac{7}{16}\right)\left(\frac{2}{9}\right)$ 413) _____

A) $\frac{7}{96}$ B) 126 C) $\frac{7}{48}$ D) $\frac{126}{1{,}728}$

414) Use a calculator to multiply and reduce answers to lowest terms: $\frac{3}{5}\left(\frac{9}{16}\right)\left(\frac{8}{21}\right)$ 414) _____

A) $\frac{216}{1{,}680}$ B) $\frac{9}{70}$ C) $\frac{1}{84}$ D) $5\frac{1}{7}$

415) Use a calculator to multiply, reduce answer to lowest terms and convert improper fractions to whole or mixed numbers: $\frac{2}{5}\left(7\frac{5}{8}\right)$ 415) _____

A) $7\frac{1}{4}$ B) $7\frac{41}{40}$ C) $3\frac{1}{20}$ D) $3\frac{17}{40}$

416) Use a calculator to multiply, reduce answer to lowest terms and convert improper fractions to whole or mixed numbers: $5\frac{3}{4}\left(7\frac{2}{3}\right)$ 416) _____

A) $44\frac{1}{12}$ B) $43\frac{7}{12}$ C) $36\frac{1}{2}$ D) $35\frac{1}{2}$

417) Use a calculator to divide and reduce answer to lowest terms, converting improper fractions to whole or mixed numbers: $\frac{7}{8} \div \frac{5}{32}$ 417) _____

A) $\frac{35}{265}$ B) $8\frac{3}{4}$ C) $5\frac{3}{5}$ D) $7\frac{11}{35}$

418) Use a calculator to divide and reduce answer to lowest terms, converting improper fraction to whole or mixed number: $\frac{6}{2\frac{1}{2}}$ 418) _____

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

419) Use a calculator with a fraction key to perform the indication operation: $12\frac{5}{8}\left(7\frac{1}{6}\right)$ 419) _____

A) $84\frac{5}{24}$ B) $84\frac{5}{48}$ C) $90\frac{23}{48}$ D) $90\frac{23}{24}$

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

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

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101) D
102) D
103) A
104) A
105) A
106) E
107) B
108) 2 in.
109) $1\frac{1}{4}$ in.
110) $3\frac{5}{16}$ in.
111) $\frac{1}{2}$ in.
112) $1\frac{3}{16}$ in.
113) $3\frac{3}{4}$ in.
114) $1\frac{7}{16}$ in.
115) A
116) A
117) A
118) D
119) B
120) D
121) D
122) B
123) D
124) A
125) Answers will vary.
126) Answers will vary.
127) C
128) B
129) D
130) A
131) C
132) A
133) A
134) A
135) B
136) D
137) D
138) D
139) B
140) B
141) D
142) C

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143) D
144) C
145) A
146) A
147) D
148) D
149) D
150) D
151) C
152) D
153) C
154) B
155) C
156) C
157) C
158) D
159) B
160) D
161) C
162) D
163) C
164) B
165) A
166) B
167) B
168) D
169) A
170) C
171) B
172) D
173) B
174) B
175) D
176) B
177) A
178) B
179) A
180) D
181) A
182) A
183) A
184) B
185) C
186) C
187) C
188) D
189) A
190) B
191) D
192) B

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193) D
194) B
195) D
196) C
197) A
198) B
199) C
200) B
201) C
202) B
203) B
204) B
205) C
206) C
207) C
208) D
209) B
210) $\frac{3}{8}, \frac{5}{12}, \frac{3}{4}, \frac{6}{7}$
211) 4 pkgs hotdogs, 5 pkgs buns
212) B
213) A
214) A
215) A
216) C
217) C
218) C
219) D
220) A
221) B
222) A
223) Answers will vary.
224) A
225) B
226) A
227) D
228) B
229) C
230) D
231) B
232) A
233) C
234) B
235) B
236) A
237) D
238) C
239) D
240) A
241) A

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242) B
243) A
244) D
245) C
246) D
247) B
248) B
249) A
250) D
251) C
252) A
253) A
254) D
255) A
256) $\frac{15}{16}$ in.
257) To add, you need a common denominator.
$\frac{3}{4} + \frac{5}{6} = \frac{9}{12} + \frac{10}{12} = \frac{19}{12}$ or $1\frac{7}{12}$
258) A
259) A
260) B
261) Answers will vary.
262) B
263) D
264) C
265) A
266) C
267) B
268) C
269) A
270) C
271) A
272) B
273) C
274) D
275) C
276) B
277) B
278) C
279) D
280) A
281) D
282) C
283) B
284) A
285) B
286) C

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287) $21\frac{7}{8}$

288) A
289) B

290) $1\frac{31}{64}$

291) A
292) A
293) B
294) C

295) Smallest: $3\frac{19}{32}$, Largest: $3\frac{21}{32}$

296) Smallest: $8\frac{7}{32}$, Largest: $8\frac{9}{32}$

297) Borrowing is required.

$$2\frac{1}{2} - 1\frac{2}{3} = 2\frac{3}{6} - 1\frac{4}{6} = 1\frac{9}{6} - 1\frac{4}{6} = \frac{5}{6}$$

298) C
299) A
300) C
301) D
302) D
303) C
304) A
305) B
306) B
307) D
308) C
309) D
310) B
311) D
312) D
313) A
314) C
315) C
316) D
317) C
318) C
319) C
320) D
321) D
322) B
323) B
324) C
325) D
326) D
327) D
328) D
329) A

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330) C
331) C
332) C
333) D
334) $58\frac{1}{2}$ in^2
335) $100\frac{3}{8}$ in.
336) $20\frac{9}{16}$ in.
337) C
338) B
339) A
340) Answers will vary.
341) Answers will vary.
342) D
343) B
344) D
345) A
346) C
347) $\frac{4}{9}$
348) $\frac{9}{64}$
349) $\frac{1}{64}$
350) $\frac{8}{125}$
351) $1\frac{7}{9}$
352) $4\frac{21}{25}$
353) B
354) C
355) C
356) B
357) A
358) C
359) C
360) B
361) A
362) C
363) B
364) D
365) C
366) D
367) C
368) B

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369) D
370) C
371) D
372) D
373) D
374) A
375) B
376) C
377) A
378) A
379) A
380) $\frac{23}{55}$
381) C
382) 1
383) B
384) A
385) B
386) C
387) D
388) C
389) C
390) C
391) D
392) D
393) $21\frac{5}{8}$ in. left
394) B
395) A
396) C
397) A
398) A
399) C
400) B
401) C
402) D
403) B
404) A
405) C
406) A
407) C
408) B
409) C
410) A
411) B
412) B
413) A
414) B
415) C

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416) A
417) C
418) D
419) C

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