

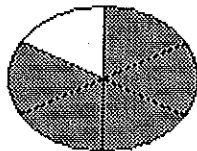
MAT0022 - Chapter 4 (Intro)
Math Connections
Valencia College

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

4.1,4.2

Write a fraction to represent the shaded area of the figure.

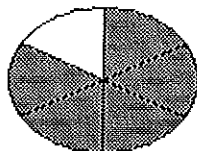
1)



1) _____

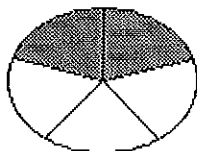
Write a fraction to represent the shaded area of the figure.

2)



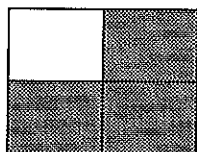
2) _____

3)



3) _____

4)



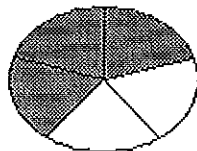
4) _____

5)



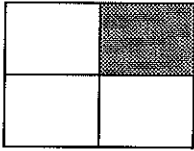
5) _____

6)



6) _____

7)



7) _____

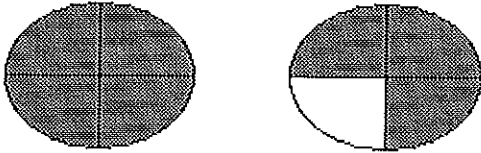
8)



8) _____

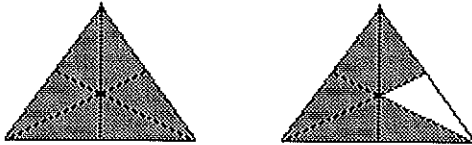
Represent the shaded area in the figure group with an improper fraction.

9)



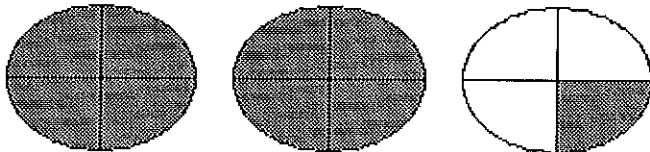
9) _____

10)



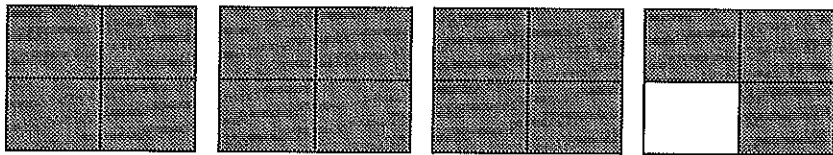
10) _____

11)



11) _____

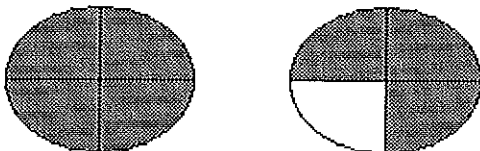
12)



12) _____

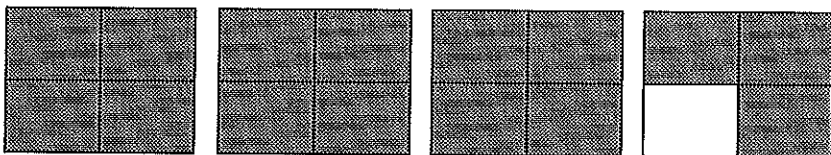
Represent the shaded area in the figure group with a mixed number.

13)



13) _____

14)



14) _____

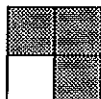
MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Determine which diagram is shaded to represent the given fraction.

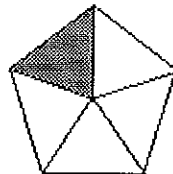
15) $\frac{1}{4}$

15) _____

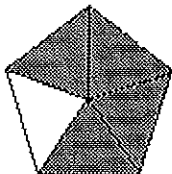
A)



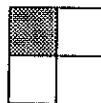
B)



C)



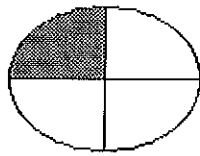
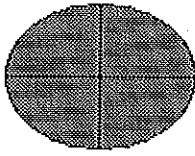
D)



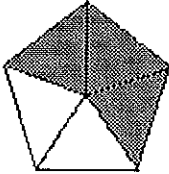
16) $\frac{5}{3}$

16) _____

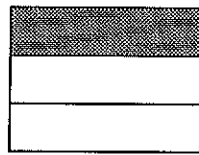
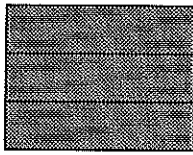
A)



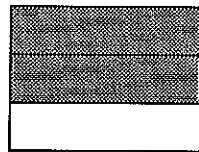
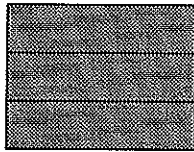
B)



C)



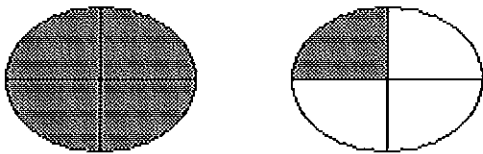
D)



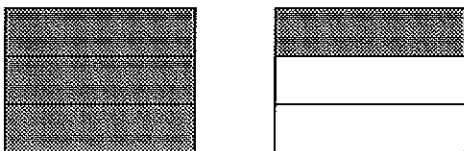
17) $1\frac{1}{6}$

17) _____

A)



B)



C)



D)



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

Write the fraction.

18) Of the 265 students at a private school, 45 are sophomores. What fraction of the students are NOT sophomores? 18) _____

19) Of the 73 doctors at a hospital, 72 are men. What fraction of the doctors are men? 19) _____

20) Of the 103 lawyers at a law firm, 95 are women. What fraction of the lawyers are men? 20) _____

21) According to a recent study, 2 out of 13 visits to a hospital emergency room were for an injury. What fraction of emergency room visits are NOT injury-related? 21) _____

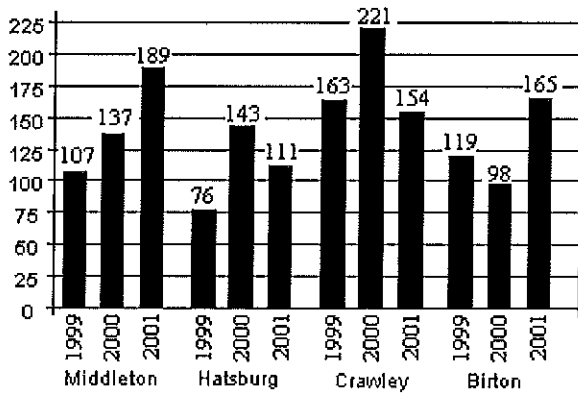
22) There are 60 minutes in an hour. What fraction of an hour does 25 minutes represent? 22) _____

23) In a speech class containing 63 students, there are 19 freshmen, 12 sophomores, 10 juniors, and the rest are seniors. What fraction of the class is seniors? 23) _____

Solve the problem.

24) In a composition class containing there are 18 freshmen, 5 sophomores, 10 juniors, and 33 seniors. What fraction of the class is seniors? 24) _____

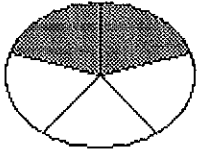
The bar graph shows the number of new residents in several towns during the years 1999 to 2001. Use the graph to answer the question.



25) Of the total number of new residents in Hatsburg during the period 1999–2001, what fraction arrived in the year 2000?

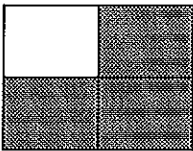
25) _____

26)



26) _____

27)



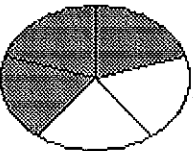
27) _____

28)



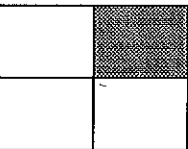
28) _____

29)



29) _____

30)



30) _____

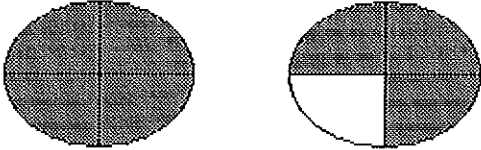
31)



31) _____

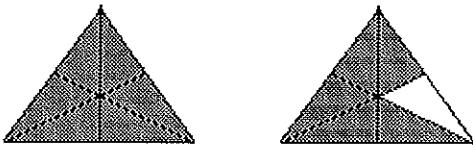
Represent the shaded area in the figure group with an improper fraction.

32)



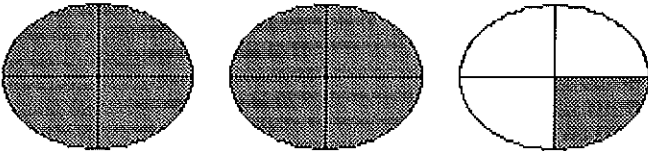
32) _____

33)



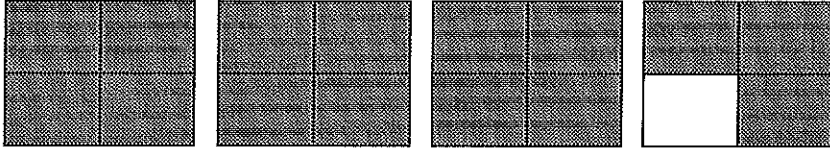
33) _____

34)



34) _____

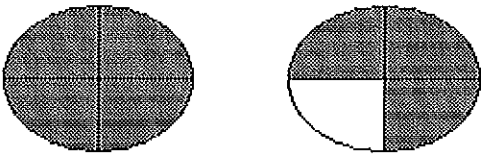
35)



35) _____

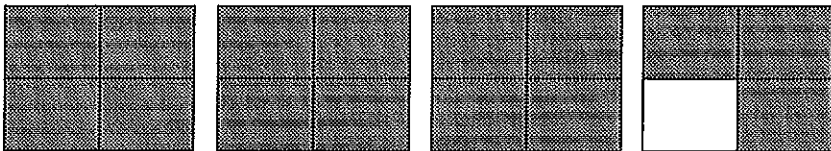
Represent the shaded area in the figure group with a mixed number.

36)



36) _____

37)



37) _____

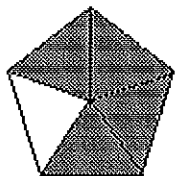
MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Determine which diagram is shaded to represent the given fraction.

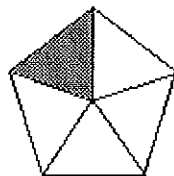
38) $\frac{1}{4}$

38) _____

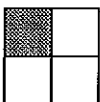
A)



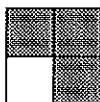
B)



C)



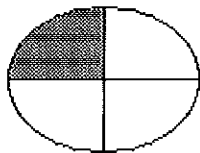
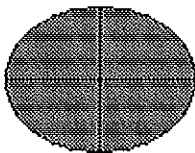
D)



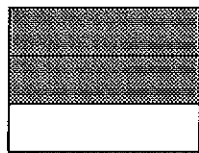
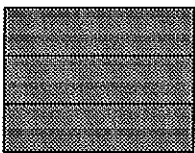
39) $\frac{5}{3}$

39) _____

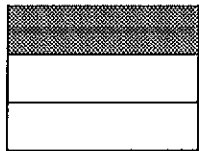
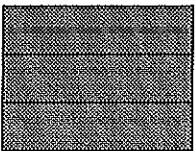
A)



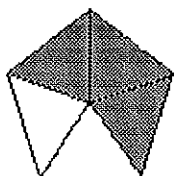
B)



C)



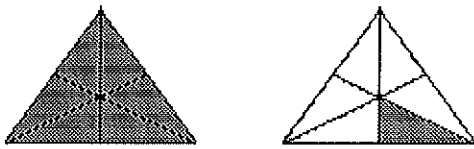
D)



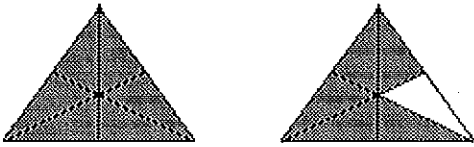
40) $1\frac{1}{6}$

40) _____

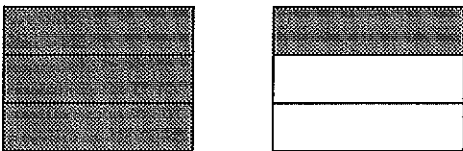
A)



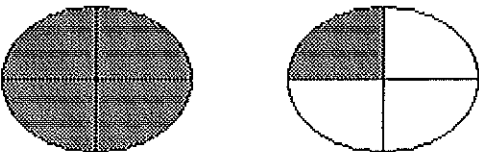
B)



C)



D)



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

Write the fraction.

41) Of the 192 students at a private school, 29 are seniors. What fraction of the students are NOT seniors? 41) _____

42) Of the 107 doctors at a hospital, 100 are men. What fraction of the doctors are men? 42) _____

43) Of the 75 teachers at a school, 67 are women. What fraction of the teachers are men? 43) _____

44) According to a recent study, 13 out of 22 visits to a hospital emergency room were for an injury. What fraction of emergency room visits are NOT injury-related? 44) _____

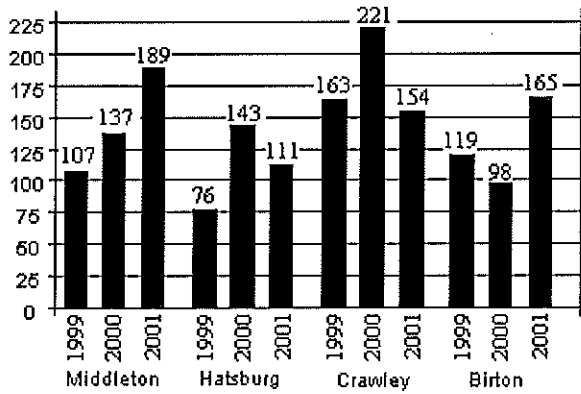
45) There are 60 minutes in an hour. What fraction of an hour does 23 minutes represent? 45) _____

46) In a speech class containing 71 students, there are 18 freshmen, 8 sophomores, 2 juniors, and the rest are seniors. What fraction of the class is seniors? 46) _____

Solve the problem.

47) In a science class containing there are 4 freshmen, 5 sophomores, 7 juniors, and 51 seniors. What fraction of the class is seniors? 47) _____

The bar graph shows the number of new residents in several towns during the years 1999 to 2001. Use the graph to answer the question.



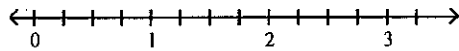
48) Of the total number of new residents in Habsburg during the period 1999–2001, what fraction arrived in the year 2000?

48) _____

Graph the fraction on a number line.

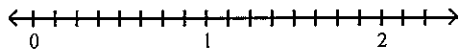
49) $\frac{1}{4}$

49) _____



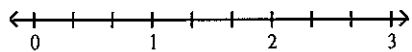
50) $\frac{5}{8}$

50) _____



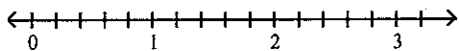
51) $\frac{2}{3}$

51) _____



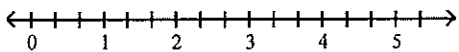
52) $\frac{8}{5}$

52) _____

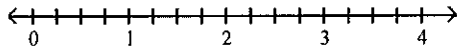


53) $\frac{8}{3}$

53) _____

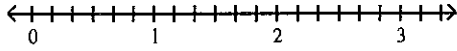


54) $\frac{11}{4}$



54) _____

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



55) _____

Simplify by dividing.

56) $\frac{-32}{-32}$

56) _____

57) $\frac{12}{-12}$

57) _____

58) $\frac{-42}{42}$

58) _____

59) $\frac{16}{1}$

59) _____

60) $\frac{-21}{1}$

60) _____

61) $\frac{5}{0}$

61) _____

62) $\frac{0}{-34}$

62) _____

Write the mixed number as an improper fraction.

63) $5\frac{7}{9}$

63) _____

64) $11\frac{10}{19}$

64) _____

Write the improper fraction as a mixed or whole number.

65) $\frac{26}{3}$

65) _____

66) $\frac{31}{5}$

66) _____

$$67) \frac{20}{3}$$

67) _____

Write the prime factorization of the number.

$$68) 110$$

68) _____

$$69) 34$$

69) _____

$$70) 16$$

70) _____

$$71) 80$$

71) _____

$$72) 198$$

72) _____

$$73) 1400$$

73) _____

Write the fraction in simplest form.

$$74) \frac{3}{24}$$

74) _____

$$75) \frac{12}{27}$$

75) _____

$$76) \frac{65}{91}$$

76) _____

$$77) \frac{35}{47}$$

77) _____

$$78) -\frac{44}{72}$$

78) _____

$$79) \frac{30}{70}$$

79) _____

$$80) \frac{75}{90}$$

80) _____

$$81) -\frac{85}{95x}$$

81) _____

$$82) \frac{4k}{18}$$

82) _____

83) $\frac{8k^3}{4k}$

83) _____

84) $\frac{8p}{28p}$

84) _____

85) $\frac{35w^3x^2}{25wx}$

85) _____

86) $\frac{48pr^2s}{18p^3r^3s^3}$

86) _____

87) $\frac{740}{1628}$

87) _____

Determine whether the pair of fractions is equivalent.

88) $\frac{3}{12}$ and $\frac{5}{20}$

88) _____

89) $\frac{3}{12}$ and $\frac{5}{21}$

89) _____

90) $\frac{1}{6}$ and $\frac{3}{18}$

90) _____

91) $\frac{3}{7}$ and $\frac{8}{12}$

91) _____

92) $\frac{6}{10}$ and $\frac{9}{20}$

92) _____

Solve. Write the fraction in simplest form.

93) There are 42 students in a math class. If 12 of the students like the teacher, what fraction of the students like the teacher?

93) _____

94) As part of her fitness training, Alice plans to cycle 48 miles today. So far, she has cycled 40 miles. What fraction of the total miles for the day is represented by 40 miles?

94) _____

95) There are 100 centimeters in 1 meter. What fraction of a meter is 12 centimeters?

95) _____

96) Of the fifty states in the United States, 12 have at least one mountain higher than 12,000 feet. What fraction of states do not have a mountain higher than 12,000 feet?

96) _____

97) There are 21,000 runners at a marathon. If 2000 are males, what fraction of the runners are males?

97) _____

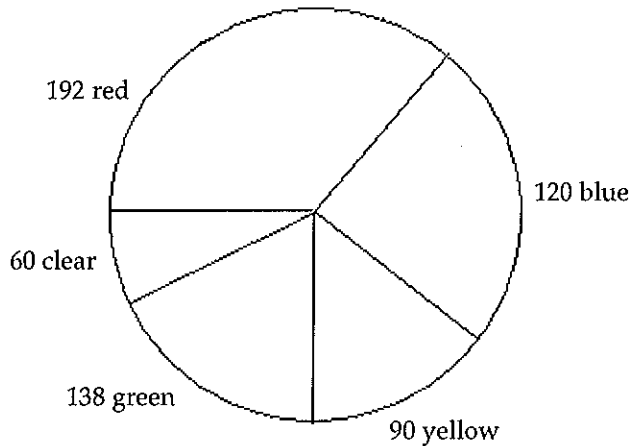
- 98) Sally bought a used car for \$13,600. Her old car was traded in for \$3200. What fraction of the purchase price was not covered by the trade-in? 98) _____
- 99) There are 10,000 runners at a marathon. If 4400 are male, what fraction of the runners are female? 99) _____
- 100) A real estate agent categorized 100 available homes by housing style. 100) _____

Distribution of Houses by Style

Housing Style	Number of Homes
Two Story	38
One and One-Half Story	12
Raised Ranch	6
Split Level	25
Ranch	19

What fraction of available homes are ranch homes?

- 101) The following graph is called a circle graph or pie chart. Each sector (shaped like a piece of pie) shows the number of each color of marbles that Bob has: 192 are red, 120 are blue, 90 are yellow, 138 are green, and 60 are clear. What fraction of the marbles are red? Write the fraction in simplest form. 101) _____



Ch. 4.

Answer Ke
Testname: :

Answer Ke
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Answer Key
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Answer Key
Testname: 22CH4INTRO

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

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

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

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

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

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

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

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

9) $\frac{7}{4}$

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

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

12) $\frac{15}{4}$

13) $1\frac{3}{4}$

14) $3\frac{3}{4}$

15) D

16) D

17) C

18) $\frac{220}{265}$

19) $\frac{72}{73}$

20) $\frac{8}{103}$

21) $\frac{11}{13}$

22) $\frac{25}{60}$

23) $\frac{22}{63}$

24) $\frac{33}{66}$

25) $\frac{143}{330}$

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

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

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

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

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

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

32) $\frac{7}{4}$

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

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

35) $\frac{15}{4}$

36) $1\frac{3}{4}$

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

38) C

39) B

40) A

41) $\frac{163}{192}$

42) $\frac{100}{107}$

43) $\frac{8}{75}$

44) $\frac{9}{22}$

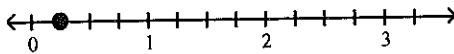
45) $\frac{23}{60}$

46) $\frac{43}{71}$

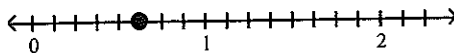
47) $\frac{51}{67}$

48) $\frac{143}{330}$

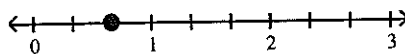
49)



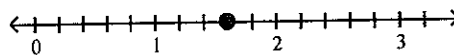
50)



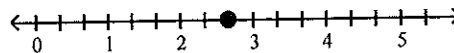
51)



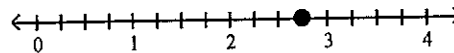
52)



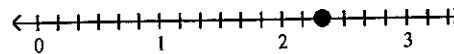
53)



54)



55)



56) 1

57) -1

58) -1

59) 16

60) -21

61) undefined

62) 0

63) $\frac{52}{9}$

64) $\frac{219}{19}$

65) $8\frac{2}{3}$

66) $6\frac{1}{5}$

67) $6\frac{2}{3}$

68) $2 \cdot 5 \cdot 11$

69) $2 \cdot 17$

70) 2^4

71) $2^4 \cdot 5$

72) $2 \cdot 3^2 \cdot 11$

73) $2^3 \cdot 5^2 \cdot 7$

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

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

76) $\frac{5}{7}$

77) $\frac{35}{47}$

78) $-\frac{11}{18}$

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

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

81) $-\frac{17}{19x}$

82) $\frac{2k}{9}$

83) $2k^2$

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

85) $\frac{7w^2x}{5}$

86) $\frac{8}{3p^2rs^2}$

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

88) equivalent

89) not equivalent

90) equivalent

91) not equivalent

92) not equivalent

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

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

95) $\frac{3}{25}$

96) $\frac{19}{25}$

97) $\frac{2}{21}$

98) $\frac{13}{17}$

99) $\frac{14}{25}$

100) $\frac{19}{100}$

101) $\frac{8}{25}$