

Name _____

Solve the formula for the specified variable.

1) $F = \frac{9}{5}C + 32$ for C

2) $A = \frac{1}{2}bh$ for b

3) $d = rt$ for r

4) $d = rt$ for t

5) $S = 2\pi rh + 2\pi r^2$ for h

6) $V = \frac{1}{3}Bh$ for h

7) $P = 2L + 2W$ for W

8) $A = \frac{1}{2}bh$ for b

9) $V = \frac{1}{3}Bh$ for h

10) $F = \frac{9}{5}C + 32$ for C

11) $P = s_1 + s_2 + s_3$ for s_3

Solve the equation for y.

12) $3x + y = 9$

13) $19x + 3y = 17$

14) $x = 3y + 7$

15) $-5x + 10y = 0$

Express the percent as a decimal.

16) 95%

17) 10%

18) 33.3%

19) 620%

20) 570%

21) 141%

22) 0.7%

23) 0.5%

24) 0.6%

25) 61.80%

26) 56.11%

27) 30.00%

28) 0.99%

29) 0.23%

30) 0.094%

31) 0.095%

32) $\frac{1}{5}\%$

33) $\frac{1}{10}\%$

34) 74%

Express the decimal as a percent.

35) 0.32

36) 0.54

37) 0.1

38) 0.8

39) 1.5

40) 4.2

41) 7.6

42) 2

43) 3

44) 7

45) 0.413

46) 0.589

47) 0.622

48) 0.753

49) 0.129

50) 0.062

51) 0.00735

52) 0.23

53) 2.3

54) 5.9

Use the percent formula, $A = PB$: A is P percent of B, to solve.

55) What number is 8% of 200?

56) What number is 80% of 165?

57) What number is 37% of 40?

58) 60% of what number is 24?

59) What percent of 2 is 2?

60) 664 is what percent of 332?

61) 37% of what number is 51.8?

62) What percent of 2.5 is 0.2?

63) 98 is 50% of what number?

64) 22 is 1% of what number?

65) 20% of what number is 61?

Solve the problem.

66) Jeans are on sale at the local department store for 25% off. If the jeans originally cost \$48, find the sale price. (Round to the nearest cent, if necessary.)

67) Jeans are on sale at the local department store for 30% off. If the jeans originally cost \$45, find the sale price. (Round to the nearest cent, if necessary.)

68) Sales at a local ice cream shop went up 60% in 5 years. If 16,000 ice cream cones were sold in the current year, find the number of ice cream cones sold 5 years ago. (Round to the nearest integer, if necessary.)

69) Sales at a local ice cream shop went up 80% in 5 years. If 32,000 ice cream cones were sold in the current year, find the number of ice cream cones sold 5 years ago. (Round to the nearest integer, if necessary.)

70) Attendance this year at the homecoming football game is 169% of what it was last year. If last year's homecoming football game attendance was 31,000, what is this year's attendance? (Round to the nearest integer, if necessary.)

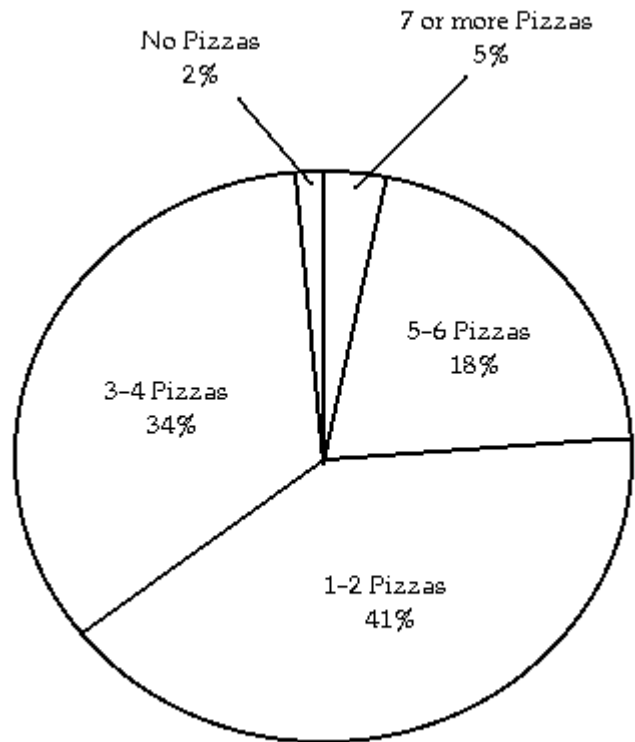
71) Of the 60 students in an algebra class, 1 of them received an F on the mid-term exam. What percent of the algebra students received an F on the exam? (Round to the nearest tenth of a percent, if necessary.)

72) Of the 110 students in an algebra class, 4 of them received an F on the mid-term exam. What percent of the algebra students received an F on the exam? (Round to the nearest tenth of a percent, if necessary.)

73) 12% of students at a university attended a lecture. If 7000 students are enrolled at the university, about how many students attended the lecture?

74) 11% of students at a university attended a lecture. If 3000 students are enrolled at the university, about how many students attended the lecture?

The pie chart below shows the number of pizzas consumed by college students in a typical month. Use the chart to answer the question.



75) What percent of college students consume 1-2 pizzas in a typical month?

76) What percent of college students consume no pizzas in a typical month?

77) What percent of college students consume 3 or more pizzas in a typical month?

78) What percent of college students consume 4 pizzas or less in a typical month?

Answer Key

Testname: 02.4V01B

1) $C = \frac{5}{9}(F - 32)$

2) $b = \frac{2A}{h}$

3) $r = \frac{d}{t}$

4) $t = \frac{d}{r}$

5) $h = \frac{S - 2\pi r^2}{2\pi r}$

6) $h = \frac{3V}{B}$

7) $W = \frac{P - 2L}{2}$

8) $b = \frac{2A}{h}$

9) $h = \frac{3V}{B}$

10) $C = \frac{5}{9}(F - 32)$

11) $s_3 = P - s_1 - s_2$

12) $y = 9 - 3x$

13) $y = \frac{17 - 19x}{3}$

14) $y = \frac{x - 7}{3}$

15) $y = \frac{x}{2}$

16) 0.95

17) 0.1

18) 0.333

19) 6.2

20) 5.7

21) 1.41

22) 0.007

23) 0.005

24) 0.006

25) 0.618

26) 0.5611

27) 0.3

28) 0.0099

29) 0.0023

30) 0.00094

31) 0.00095

32) 0.002

33) 0.001

Answer Key

Testname: 02.4V01B

- 34) 0.74
- 35) 32%
- 36) 54%
- 37) 10%
- 38) 80%
- 39) 150%
- 40) 420%
- 41) 760%
- 42) 200%
- 43) 300%
- 44) 700%
- 45) 41.3%
- 46) 58.9%
- 47) 62.2%
- 48) 75.3%
- 49) 12.9%
- 50) 6.2%
- 51) 0.735%
- 52) 23%
- 53) 230%
- 54) 590%
- 55) 16
- 56) 132
- 57) 14.8
- 58) 40
- 59) 100%
- 60) 200%
- 61) 140
- 62) 8%
- 63) 196
- 64) 2200
- 65) 305
- 66) \$36.00
- 67) \$31.50
- 68) 10,000 ice cream cones
- 69) 17,778 ice cream cones
- 70) 52,390 people
- 71) 1.7%
- 72) 3.6%
- 73) 840 students
- 74) 330 students
- 75) 41%
- 76) 2%
- 77) 57%
- 78) 77%