Math 084 W2010 Worksheet 2.4 v01a
Dressler

Name_____

Solve the formula for the specified variable.

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

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

3) $d = rt$ for r

4) $d = rt$ for t

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

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

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

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

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

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

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

Solve the equation for y.

12) $4x + y = 20$

13) $17x + 9y = 20$

14) $x = 8y + 9$

15) $-4x + 8y = 0$

Express the percent as a decimal.

16) 71%

17) 70%

18) 4.9%

19) 200%

20) 530%

21) 974%

22) 0.9%

23) 0.6%

24) 0.3%

25) 70.28%

26) 37.59%

27) 67.84%

28) 0.26%

29) 0.79%

30) 0.042%

31) 0.059%

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

33) $\frac{1}{20}$%

34) 24%

Express the decimal as a percent.

35) 0.25

36) 0.88

37) 0.8

38) 0.7

39) 1.1

40) 5.1

41) 8.9

42) 7

43) 6

44) 4

45) 0.636

46) 0.254

47) 0.661

48) 0.263

49) 0.899

50) 0.424

51) 0.00981

52) 0.48

53) 9.4

54) 3.1

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

55) What number is 3% of 100?

56) What number is 20% of 124?

57) What number is 24% of 70?

58) 64% of what number is 51.2?

59) What percent of 100 is 2?

60) 1500 is what percent of 300?

61) 35% of what number is 38.5?

62) What percent of 7.5 is 1.2?

63) 90 is 50% of what number?

64) 19 is 4% of what number?

65) 20% of what number is 62?

Solve the problem.

66) Jeans are on sale at the local department store for 30% off. If the jeans originally cost $63, find the sale price. (Round to the nearest cent, if necessary.)

67) Jeans are on sale at the local department store for 20% 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 70% in 5 years. If 15,000 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 20% in 5 years. If 46,000 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 126% of what it was last year. If last year's homecoming football game attendance was 39,000, what is this year's attendance? (Round to the nearest integer, if necessary.)
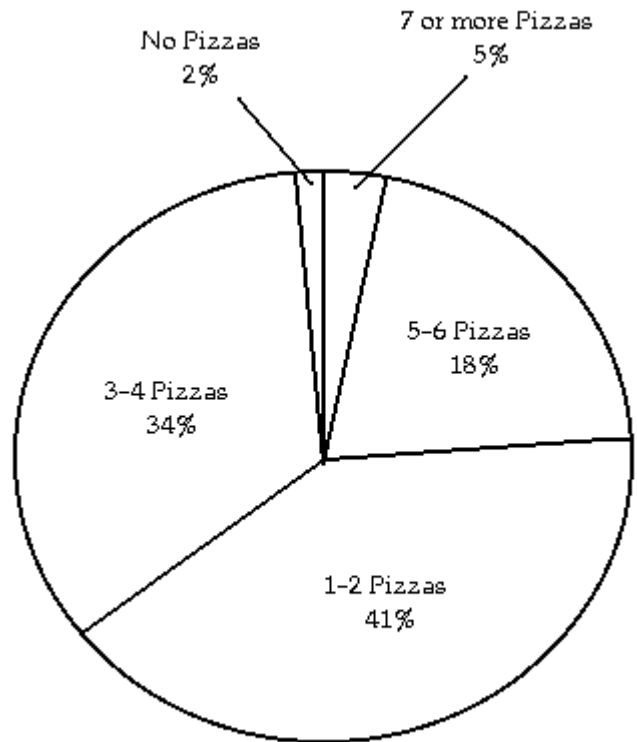
71) Of the 150 students in an algebra class, 1 of them received an F on the mid–term exam. What percent of the algebra students received an F on the exam? (Round to the nearest tenth of a percent, if necessary.)

72) Of the 80 students in an algebra class, 10 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) 5% of students at a university attended a lecture. If 3000 students are enrolled at the university, about how many students attended the lecture?

74) 12% of students at a university attended a lecture. If 2000 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.

No Pizzas
2%

7 or more Pizzas
5%

5–6 Pizzas
18%

3–4 Pizzas
34%

1–2 Pizzas
41%

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?

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

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

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

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

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

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

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

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

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

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

11) $s_3 = P - s_1 - s_2$

12) $y = 20 - 4x$

13) $y = \dfrac{20 - 17x}{9}$

14) $y = \dfrac{x - 9}{8}$

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

16) 0.71
17) 0.7
18) 0.049
19) 2.0
20) 5.3
21) 9.74
22) 0.009
23) 0.006
24) 0.003
25) 0.7028
26) 0.3759
27) 0.6784
28) 0.0026
29) 0.0079
30) 0.00042
31) 0.00059
32) 0.001
33) 0.0005

34) 0.24
35) 25%
36) 88%
37) 80%
38) 70%
39) 110%
40) 510%
41) 890%
42) 700%
43) 600%
44) 400%
45) 63.6%
46) 25.4%
47) 66.1%
48) 26.3%
49) 89.9%
50) 42.4%
51) 0.981%
52) 48%
53) 940%
54) 310%
55) 3
56) 24.8
57) 16.8
58) 80
59) 2%
60) 500%
61) 110
62) 16%
63) 180
64) 475
65) 310
66) $44.10
67) $36.00
68) 8824 ice cream cones
69) 38,333 ice cream cones
70) 49,140 people
71) 0.7%
72) 12.5%
73) 150 students
74) 240 students
75) 41%
76) 2%
77) 57%
78) 77%