COOPERATIVE EXTENSION SERVICE

College of Tropical Agriculture and Human Resources
University of Hawai'i at Mānoa
United States Department of Agriculture Cooperating

October 2005

NEW READING NUMBERS IN TABLES
PAGE 4

Aloha,

The leaflet "Test Your Math Skills" is attached to this note. (It replaces the the July 2003 version.) The leaflet gives you a chance to refresh your basic math skills before you attend the next *Pesticide Risk Reduction Education* short course.

"Test Your Math Skills" presents math exercises as well as the answers. If you can do all of the exercises without too much trouble, you will get maximum benefit from the calculation examples I show in the short course. For the exercises that are difficult to do, ask someone to show you how to get the answers. Knowing how will make it easier to learn ways of figuring a proper dilution and dosage for many pesticides.

The exercises in this leaflet are about (1) common fractions and their decimal number equivalents, (2) rounding off, (3) percent, (4) conversions between seconds and minutes; ounces and pounds; fluid ounces, pints, quarts, and gallons; and square feet and acres, (5) reading tables, and (6) calculating square feet of rectangular areas.

I appreciate your interest in learning more about handling pesticides properly. Thank you.

Charles Nagamine, Instructor
Pesticide Risk Reduction Education Program

Department of Plant and Environmental Protection Sciences
~~3050 Maile Way, Gilmore 310, Honolulu, Hawaii 96822~~ 3190 Maile Way Room 307 • Honolulu, Hawaii 96822
Telephone (808) 956-6007, Facsimile (808) 956-9675, ~~E-mail charlie@hpirs.stjohn.hawaii.edu, Web <www.ctahr.hawaii.edu>~~
E-mail *cynagami@hawaii.edu* • Web <pestworld.stjohn.hawaii.edu/epp/pat.html>

Test Your Math Skills

October 2005

Answers are on the last page.

If you don't know how to get the answers, ask someone to show you how. It will be easier to learn to do pesticide problems if you know how.

Give the <u>decimal number</u> for each of these:

EXAMPLE: $\frac{1}{2}$ = 0.5

1) $\frac{1}{4}$ = _____

2) $\frac{1}{3}$ = _____

3) $\frac{2}{3}$ = _____

4) $2\frac{1}{4}$ = _____

5) $5\frac{4}{8}$ = _____

6) zero point one two five = _____

7) zero point two = _____

8) point three three = _____

9) four point three = _____

10) eleven point six = _____

Give the <u>fraction</u> for each of these:

EXAMPLE: 0.5 = $\frac{1}{2}$

11) 0.25 = _____

12) 0.333 = _____

13) 0.75 = _____

14) 3.667 = _____

15) 6.50 = _____

EXAMPLE: one fifth = $\frac{1}{5}$

16) one fourth = _____

17) one third = _____

18) two eighths = _____

19) seven sixteenths = _____

20) one and three fourths = _____

Round off each of these to the nearest <u>tenth</u>:

EXAMPLE: 0.16 = <u>0.2</u>

21) 0.667 = _____

22) 0.55 = _____

23) 0.398 = _____

24) 1.54 = _____

Round off each of the following to the nearest <u>hundredth</u>:

EXAMPLE: 0.1667 = <u>0.17</u>

25) 0.333 = _____

26) 4.3445 = _____

27) 8.1666667 = _____

Fill in the blanks.

50% = 0.5

28) 23% = _____

29) 23.5% = _____

30) 5% = _____

31) 5.5% = _____

50% of 10 pounds = 5 pounds

32) 23% of 50 pounds = _____ pounds

33) 23.5% of 50 pounds = _____ pounds

34) 5% of 50 pounds = _____ pounds

35) 5.5% of 50 pounds = _____ pounds

60 seconds = 1. 00 minute

36) 25 seconds = _____ minute

37) 15 seconds = _____ minute

38) 180 seconds = _____ minutes

39) 236 seconds = _____ minutes

16 oz. = 1. 00 pound

40) 5 oz. = _____ pound

41) 12.5 oz. = _____ pound

42) 44 oz. = _____ pounds

43) 85½ oz. = _____ pounds

1 pound = 16.0 oz.

44) ½ pound = _____ oz.

45) 2 pounds = _____ oz.

46) 3.5 pounds = _____ oz.

47) 6½ pounds = _____ oz.

16 fl. oz. = 1.00 pt.

48) 11 fl. oz. = _____ pt.

49) 140 fl. oz. = _____ pt.

50) 30½ fl. oz. = _____ pt.

51) 42.5 fl. oz. = _____ pt.

1 pint = 16.0 fl. oz.

52) ⅓ pint = __ fl. oz.

53) 2 pints = __ fl. oz.

54) 3⅓ pints = __ fl. oz.

55) 4.67 pints = __ fl. oz.

128 fluid ounces = 1. 00 gallon

56) 33 fl. oz. = _____ gallon

57) 75.5 fl. oz. = _____ gallon

58) 138 fl. oz. = _____ gallon

59) 150½ fl. oz. = _____ gallon

2 pt. = 1.00 qt.

60) 3 pt. = _____ qt.

61) 24 pt. = _____ qt.

62) $15\frac{3}{4}$ pt. = _____ qt.

63) 22.33 pt. = _____ qt.

8 pt. = 1.00 gal.

64) 3 pt. = _____ gal.

65) 18 pt. = _____ gal.

66) $18\frac{2}{3}$ pt. = _____ gal.

67) 27.125 pt. = _____ gal.

1 gal. = 128.00 fl. oz.

68) 3 gal. = _____ fl. oz.

69) 18 gal. = _____ fl. oz.

70) $\frac{2}{5}$ gal. = _____ fl. oz.

71) 0.125 gal. = _____ fl. Oz

43, 560 sq. ft. = 1.000 acre

72) 742 sq. ft. = _____ acre

73) 1,555 sq. ft. = _____ acre

74) 18,750 sq. ft. = _____ acre

75) 46,315 sq. ft. = _____ acre

Read the table to answer the questions.

76) What is the price of a medium size cup of coffee?

Coffee

	SMALL	MEDIUM	LARGE
Price	$0.75	$1.00	$1.25

77) What is the price of 1 gallon of regular gas?

Gas

REGULAR	3.00
PLUS	3.20
PREMIUM	3.40

78) BLANK. ERROR.

79) How much product do you need for 50 gallons of spray mix?

80) How much water do you need for 50 gallons of spray mix?

How to Mix This Product

SPRAY MIX to make	Amount of PRODUCT to use	Amount of WATER to use
100 gallons	1 gallon	99 gallons
50 gallons	½ gallon	49½ gallons
25 gallons	1 quart	24¾ gallons

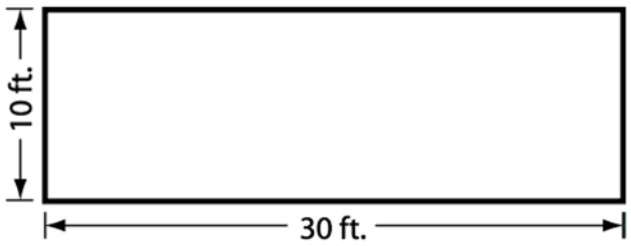
81) How much product do you need for 25 gallons of 3% spray mix?

How to Dilute This Product

SPRAY MIX to Make	**Amount of PRODUCT to Use**		
	1% Spray Mix	3% Spray Mix	5% Spray Mix
100 gallons	9.4 pounds	28.1 pounds	31.3 pounds
25 gallons	2.3 pounds	7 pounds	7.8 pounds
1 gallon	1.5 ounce	4.5 ounces	5 ounces

82) This is a sketch of a field. How many square feet are in this field?

_____ sq. ft.

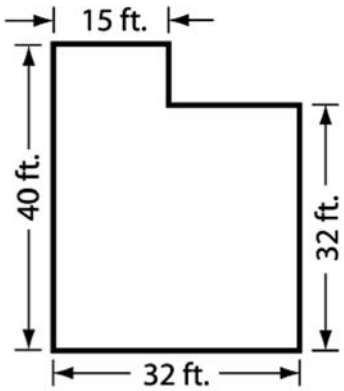


83) This is a sketch of a field. How many a square feet are in this field?

_____ sq. ft.

84) This is a sketch of a shed foundation. How many square feet are in this foundation?

_____ sq. ft.



85) Water sprays out of a certain nozzle at a rate of 14 fluid ounces in 15 seconds. Two ways of writing this are:

a) $\frac{14\,fl.oz.}{15sec.}$ b) $\frac{15sec.}{14\,fl.oz.}$ c) $\frac{14sec.}{15\,fl.oz.}$ d) $\frac{15sec.}{14}$

86) Water sprays out of a certain nozzle at a rate of 0.44 gallons per minute. Two ways of writing this are:

a) $\frac{0.44gal}{min.}$ b) $\frac{\min}{0.44gal.}$ c) $\frac{44gal.}{min.}$ d) $\frac{0.44\min.}{gal.}$

87) I use 3 gallons of spray mixture to treat 1,000 square feet of lawn. Two ways of writing this are:

a) $\frac{3gal.}{1{,}000sq.ft.}$ b) $\frac{1{,}000sq.ft.}{3gal.}$ c) $\frac{1{,}000\,ft.}{3gal.}$ d) $\frac{3sq.ft.}{1{,}000gal.}$

88) I need 180 gallons of spray mixture to treat 1 acre of beans. Two ways of writing this are:

a) $\frac{180gal.}{acre}$ b) $\frac{acre}{180gal.}$ c) $\frac{180acres}{1gal.}$ d) $\frac{1}{180gal.}$

ANSWERS

1) 0.25
2) 0.33
3) 0.67
4) 2.25
5) 5.5
6) 0.125
7) 0.2
8) 0.33
9) 4.3
10) 11.6

—

11) $\frac{1}{4}$
12) $\frac{1}{3}$
13) $\frac{3}{4}$
14) $3\frac{2}{3}$
15) $6\frac{1}{2}$
16) $\frac{1}{4}$
17) $\frac{1}{3}$
18) $\frac{2}{8}$
19) $\frac{7}{16}$
20) $1\frac{3}{4}$

—

21) 0.7
22) 0.6
23) 0.4
24) 1.5

—

25) 0.33
26) 4.34
27) 8.17

—

28) 0.23
29) 0.235
30) 0.05
31) 0.055

—

32) 11.5
33) 11.75
34) 2.5
35) 2.75

—

36) 0.42
37) 0.25
38) 3.00
39) 3.93

—

40) 0.31
41) 0.78
42) 2.75
43) 5.34

44) 8.0
45) 32.0
46) 56.0
47) 104.0

—

48) 0.69
49) 8.75
50) 1.91
51) 2.66

—

52) 5.3
53) 32.0
54) 53.3
55) 74.7

—

56) 0.26
57) 0.59
58) 1.08
59) 1.18

—

60) 1.50
61) 12.00
62) 7.88
63) 11.17

—

64) 0.38
65) 2.25

66) 2.33
67) 3.39

—

68) 384
69) 2304
70) 51.2
71) 16

—

72) 0.017
73) 0.036
74) 0.430
75) 1.063

—

76) $1.00
77) $3.00
79) $\frac{1}{2}$ gallon
78) BLANK. ERROR.
80) $49\frac{1}{2}$ gallons
81) 7 pounds

—

82) 300
83) 12,025
84) 1,144

—

85) a and b
86) a and b
87) a and b
88) a and b