MAP 255 (T2) Issue 9

Math Power

Name: (First)_____(Last)_____

School: _____ Grade:_____

Multiply by Adding the Places

1. $.08 \times .03 =$

2. $.07 \times .03 =$

3. $.5 \times .03 =$

4. $.04 \times .03 =$

5. $.7 \times .03 =$

6. $.5 \times .3 =$

7. $.05 \times .03 =$

8. $.07 \times .3 =$

9. $.6 \times .03 =$

10. $.06 \times .03 =$

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11. $.4 \times .3 =$

20. $.05 \times .3 =$

12. $.8 \times .03 =$

Power Operation

Power means **multiplying itself** a couple of times.

For example,
$2^3 = 2 \times 2 \times 2 = 8$
$3^2 = 3 \times 3 = 9$

13. $.8 \times .3 =$

14. $.04 \times .3 =$

21. $4^3 =$

15. $.08 \times .3 =$

22. $4^4 =$

16. $.6 \times .3 =$

23. $5^3 =$

17. $.4 \times .03 =$

24. $5^4 =$

18. $.7 \times .3 =$

25. $10^2 =$

19. $.06 \times .3 =$

26. $10^3 =$

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27. $10^4 =$

28. $20^2 =$

29. $20^3 =$

30. $20^4 =$

34.
$$4\frac{3}{4}$$
$$-\ 1\frac{3}{10}$$

35. Joan drove to Denver in $21\frac{5}{12}$ hours. If she drove $11\frac{2}{3}$ hours the first day, how many hours did she drive on the second day?

36.
$$\frac{3}{4}$$
$$+\ \frac{5}{6}$$

Fraction Means Parts
Must simplify the fraction of your answer to its lowest terms.

31.
$$\frac{3}{4}$$
$$+\ \frac{1}{6}$$

32.
$$5\ \frac{1}{6}$$
$$+\ \frac{1}{4}$$

33.
$$2\ \frac{5}{8}$$
$$-1\ \frac{1}{3}$$

37.
$$\frac{13}{24}$$
$$-\ \frac{3}{8}$$

38.
$$\frac{3}{35}$$
$$+\ \frac{1}{5}$$

39.
$$\frac{3}{8}$$
$$-\ \frac{1}{6}$$

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40.
$$\begin{array}{r} 1\frac{7}{6} \\ -\ \ \frac{5}{24} \\ \hline \end{array}$$

41.
$$\begin{array}{r} \frac{7}{16} \\ -\ \ \frac{1}{3} \\ \hline \end{array}$$

42.
$$\begin{array}{r} \frac{3}{4} \\ +\ \ \frac{5}{16} \\ \hline \end{array}$$

43.
$$\begin{array}{r} \frac{2}{15} \\ +\ \ \frac{1}{30} \\ \hline \end{array}$$

44.
$$\begin{array}{r} 5\frac{8}{15} \\ -\ \ 5\frac{1}{6} \\ \hline \end{array}$$

45. $2\frac{3}{5} - \frac{5}{3} =$

46.
$$\begin{array}{r} \frac{3}{4} \\ +\ \ \frac{1}{6} \\ \hline \end{array}$$

47.
$$\begin{array}{r} \frac{2}{25} \\ +\ \ \frac{2}{5} \\ \hline \end{array}$$

48. $\frac{4}{5} \times 55 =$

49. $\frac{5}{9} \times 81 =$

50. $184 \times \frac{5}{8} =$

Reciprocals

Turn each fraction into vertical first:
- $1\_2/3 = \mathbf{1\frac{2}{3}}$

Turn each mixed number into improper:
- $\mathbf{1\frac{2}{3}} = \frac{5}{3}$

<u>Reciprocal</u> means flip-over:
- $(\mathbf{1\_2/3})^{-1} = \left(\mathbf{1\frac{2}{3}}\right)^{-1} = \left(\frac{5}{3}\right)^{-1} = \frac{3}{5}$

51. $1/(2\ 1/2) =$

$$\frac{1}{2\frac{1}{2}} =$$

52. $1/(4\ 2/3) =$

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53. $1/(6 - 3/4) =$

54. $1/(8 - 2/5) =$

55. $1/(2 - 5/6) =$

56. $1/(8 - 2/7) =$

57. $1/(4 - 1/8) =$

58. $1/(7 - 1/9) =$

59. $1/(1 - 8/9) =$

60. $1/(1 - 1/7) =$

Math Reflex 5

61. Ruth is good at practicing flips in gymnastics class. She flips for 8 minutes during the 1st class, 12 minutes during the 2nd class, and 16 minutes during the 3rd class. If she continues flipping in this pattern, how many minutes does Ruth practice during the 7th class?

62. Donna puts 30 cupcakes evenly into 3 boxes. Daniel took 2 boxes. How many cupcakes did Donna have left?

63. The distance from your house to the town is 90 miles. You have traveled $\frac{5}{9}$ of the way. How many miles do you <u>still need to</u> travel to the town?

64. How many **inches** are there in $2\frac{3}{4}$ feet? *(Hint: 1 ft = 12 in)*

65. Mrs. Taylor had several tomatoes. She sold $\frac{5}{9}$ of the tomatoes and kept 52. How many were <u>sold</u>?
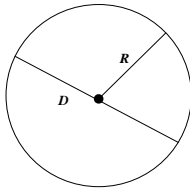
66. There are 5,280 feet in a mile. John walked $\frac{1}{4}$ mile. How many more feet must John walk to reach a mile?

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67. A recipe for a cup of sauce calls for $\frac{1}{4}$ pound of cheese. How many <u>ounces</u> of cheese are needed to make 6 cups of the sauce?
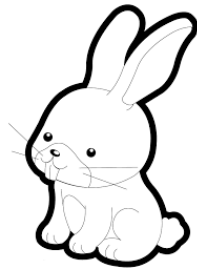
    (Hint: 1 pound = 16 ounces)

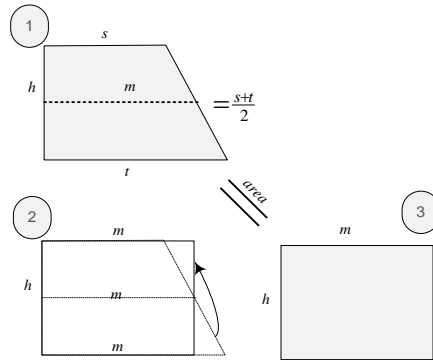68. A circle with radius R measuring 5 is pictured below.

    Leave π in your answer.

    (a) Find the circumference. (πD)

    (b) Find the area. (πR^2)

69. Convert trapezoid to a rectangle. In the following figure,

    $s = 7$ inches

    $t = 3$ inches

    $h = 6$ inches

    (a) Find the value of m (in inches) in Fig. ①.

    (b) Find the area (in sq. inches) of the rectangle Fig. ③.

70. Joan wants to make ties from a piece of fabric 3 yards long and 6 yards wide. Each tie requires a piece of fabric that is $\frac{3}{4}$ yard wide and 1 yard long. How many ties can she make?

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71. In the figure pictured below, the square has the same area as the right triangle.
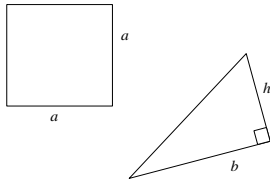

Figure not drawn to scale

a = 16 inches.
b = 16 inches.
Find the value of h (in inches).

73. In the figure pictured below, the square has the same area as the right triangle.
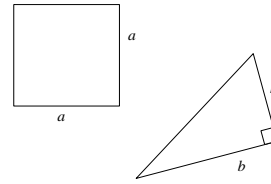

Figure not drawn to scale

a = 24 inches.
b = 36 inches.
Find the value of h (in inches).

72. In the figure pictured below, the square has the same area as the right triangle.
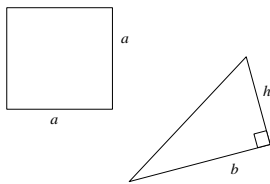

Figure not drawn to scale

a = 12 inches.
b = 24 inches.
Find the value of h (in inches).

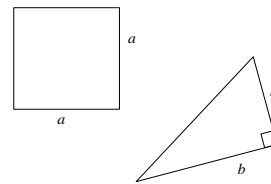74. In the figure pictured below, the square has the same area as the right triangle.

Figure not drawn to scale

a = 18 inches.
b = 54 inches.
Find the value of h (in inches).

75. Find the squares.
   (a) $(-3)^2$
   (b) $(30)^2$
   (c) $(0.3)^2$

76. How many dimes are worth 14 quarters?

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77. Quick mul-divide

    (a) $13 \times 12 =$

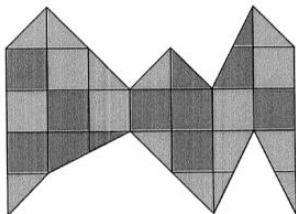   (b) $9 \times 17 =$

    (c) $50 \div 25 =$

78. 5 boxes of cereal cost 7 dollars. How many boxes of cereal cost 21 dollars?

79. The average weight between Alex and Brian is 60 pounds. The average weight among Chad, Dave and Eric is 40 pounds. What is the average weight of the five boys?

80. On a coordinate line, C = -3 is the midpoint of AB. If A = -5, what is the coordinate of B?
    (Hint: The midpoint lies right in the middle of two points)
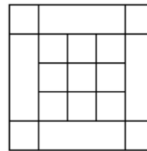
MATH Kangaroo

81. In a game, coloring a black square is worth 2 points and coloring a gray square is worth 1 point. How many points can he receive by coloring this figure?

82. There are 10 ducks. Five of these ducks each lay 2 eggs every day. The other five ducks each lay 3 eggs every second day. How many eggs in total do the ten ducks lay in a period of 10 days?

Question set [**83 - 84**]

Given the figure below:

83. How many different sizes of square can you identify in the figure?

84. How many different squares of any size can you identify in the figure?

85. Which three pieces should be added to complete the puzzle?

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