Name: Key Test Date: _____

Mid-Module 2 Study Guide

1. Multiply using the area model or the standard algorithm. Show your work below.

623 x 54= 33,642

	600	20	3
4	2400	80	12
+ 50	30000	1000	150

2400 + 80 + 12 = 2492
30000 + 1000 + 150 = 31,150
2492 + 31150 = 33,642

$$\begin{array}{r} {\scriptstyle 1\,1} \\ 623 \\ \times\ 54 \\ \hline 2492 \\ 31150 \\ \hline 33,642 \end{array}$$

6.23 x 504= 3139.92

	600	20	3	hundredths
4	2400	80	12	2492
0				
500	300000	10000	1500	= 311500

311500 + 2492 = 313992 hundredths
÷100 = 3,139.92

$$\begin{array}{r} {\scriptstyle 1\,1} \\ 623\ \text{h}^{\text{th}} \\ \times\ 504 \\ \hline 2492 \\ 0000 \\ 311500 \\ \hline 313992\ \text{h}^{\text{th}} \end{array}$$
÷100
3139.92

2. Solve. Use words, numbers, or pictures to explain how your answers to Parts (a) and (b) are related or similar

a. 40 x 35 = 1400

$$\begin{array}{r} 40 \\ \times 35 \\ \hline 200 \\ 1200 \\ \hline 1400 \end{array}$$

b. 40 x 3.5 = 40 x 35 tenths = 140

$$\begin{array}{r} 40 \\ \times 35\ \text{tenths} \\ \hline 200 \\ 1200 \\ \hline 1400\ \text{tenths} \end{array}$$
÷10
= 140.0

The part b is one tenth the size as the answer in part a because 35 tenths is a tenth the size of 35.

3. The length of the boogie board is 56 centimeters. The surfboard is 4 times the length of the boogie board. What is the length of the surfboard in meters? (1 m = 100 cm)

$$\begin{array}{r} {\scriptstyle 2} \\ 56\ \text{cm} \\ \times\ 4 \\ \hline 224\ \text{cm} \end{array}$$

The length of the surfboard is 2.24 m

Expand = 224 cm = ____ m

224 x 1 cm

Convert: 224 x 0.01 m

Answer = 2.24 m

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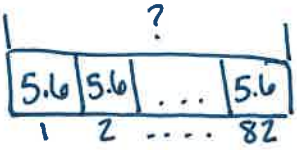
4. Susan makes aprons to sell at the craft fair. Each apron requires 5.6 yards of material. At the fabric store, material is sold by the foot. If Susan wants to make 82 aprons how many feet of material must she buy? (1 yd. = 3 ft.) Show all your work.

Susan needs to buy 1378 ft. of material.



82 x 5.6

+4
56 tenths
x 82
112
+4480
4592 tenths ÷10
= 459.2 yards

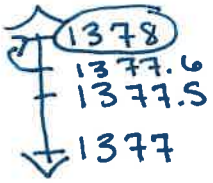
459.2 yrds = ____ ft

Expand = 459.2 x (1 yrd.)

Convert = 459.2 x 3 ft

Answer = 1377.6

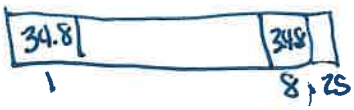
1 2
4592 tenths
x 3
13776 tenths
÷10
1,377.6



Level 4
Show all of your work.

1. Jeremiah's car gets 34.8 miles per gallon on the highway. If his fuel tank holds 8.25 gallons, then how far can he travel on one full tank of gas? (PS2.LT1)

Jeremiah can travel 287.1 miles.



34.8 x 8.25

2 3 1 6
348 tenths
x 825 hundredths
1740
6960
278400
287100 thousandths ÷ 1000 = 287.100

2. Becca's dog weighs 3,560 grams. How many kilograms does her dog weigh? If 1 kg is equal to 2.21 lbs, how much would the dog weigh in pounds? (PS5.LT3)

Becca's dog would weigh 3.56 kg and 7.8676 lbs

3560 g = ____ kg

E: 3560 x 1 g

C 3560 x 0.001 kg

A. 3.560 kg

3.56 x 2.21 =
356 hundredths
x 221 hundredths
356
7120
71200
78676 ÷ ten thousandths 10,000 = 7.8676