



## Warm Up Grade 7

line up •

1) A student subtracted 0.373 from 4.81 and got the difference of 0.108.

a) What mistake did the student make and find the actual answer?

$$\begin{array}{r}
 4.810 \\
 - 0.373 \\
 \hline
 4.437
 \end{array}$$

His mistake was not lining up the decimal.

Extra Practice 3 Solutions

$\begin{array}{r} 1) a) \quad \overset{\cdot}{9}.043 \\ \quad \quad 0.900 \\ \quad \quad + 1.150 \\ \hline \quad \quad 11.093 \end{array}$	$\begin{array}{r} \text{Estimate} \\ 9 \\ + 1 \\ + 1 \\ \hline 11 \end{array}$	$\begin{array}{r} 1) b) \quad \overset{\cdot}{2}.09 \\ \quad \quad 4.60 \\ \quad \quad + 1.80 \\ \hline \quad \quad 8.49 \end{array}$	$\begin{array}{r} \text{Estimate} \\ 2 \\ + 5 \\ + 2 \\ \hline 9 \end{array}$
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$\begin{array}{r} 1) b) \quad 9.6 \\ \quad - 7.4 \\ \hline \quad 2.2 \end{array}$	$\begin{array}{r} \text{Estimate} \\ 10 \\ - 7 \\ \hline 3 \end{array}$	$\begin{array}{r} 1) d) \quad \overset{\cdot}{450.34} \\ \quad - 5.04 \\ \hline \quad 45.36 \end{array}$	$\begin{array}{r} \text{Estimate} \\ 50 \\ - 5 \\ \hline 45 \end{array}$
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$\begin{array}{r} 2) a) \quad \overset{\cdot}{7}.56 \\ \quad \quad \overset{\cdot}{0}.07 \\ \quad \quad + 122.70 \\ \hline \quad \quad 130.33 \end{array}$	$\begin{array}{r} \text{Estimate} \\ 8 \\ \quad 10 \\ + 23 \\ \hline 131 \end{array}$	$\begin{array}{r} \text{or} \\ 7.6 \\ \quad 10.1 \\ \quad 122.7 \\ \hline 130.4 \end{array}$
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$\begin{array}{r} 2) b) \quad 67.85 \\ \quad - 6.93 \\ \hline \quad 0.92 \end{array}$	$\begin{array}{r} \text{Estimate} \\ 8 \\ - 7 \\ \hline 1 \end{array}$
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$\begin{array}{r} 2) c) \quad \overset{\cdot}{12}.120 \\ \quad - 1.68 \\ \hline \quad 0.52 \end{array}$	$\begin{array}{r} 2 \\ - 2 \\ \hline 0 \end{array}$
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$\begin{array}{r} 2) d) \quad \overset{\cdot}{83}.07 \\ \quad \quad 0.42 \\ \quad \quad + 7.70 \\ \hline \quad \quad 91.19 \end{array}$	$\begin{array}{r} \overset{\cdot}{83} \\ \quad 0 \\ \quad + 8 \\ \hline 91 \end{array}$
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$$\begin{array}{r}
 3) \quad \overset{1}{3.60} \\
 \quad 1.70 \\
 \quad 3.00 \\
 + \underline{2.28} \\
 \quad 10.58
 \end{array}
 \qquad
 \begin{array}{r}
 \text{Estimate} \\
 4 \\
 2 \\
 3 \\
 + 2 \\
 \hline
 11
 \end{array}$$

Total mass Atthea had to carry was 10.58kg

$$\begin{array}{r}
 4) \quad 189.4 \\
 \quad -156.7 \\
 \hline
 \quad 32.7
 \end{array}$$

The scenic route is 32.7 km longer.

$$\begin{array}{r}
 5) \quad \text{Edmonton } \$1.147 \\
 \quad \text{Victoria } 1.234
 \end{array}$$

$$\begin{array}{r}
 \quad 1.234 \\
 - \underline{1.147} \\
 \quad 0.087
 \end{array}$$

$$\begin{array}{r}
 \quad 1.213 \\
 - \underline{1.15} \\
 \quad 0.08
 \end{array}$$

← nearest cent

Round to nearest cent  
0.09 more

6) Many Answers

$$\begin{array}{r}
 254.791 \\
 - \underline{10.600} \\
 244.191
 \end{array}$$

So

$$\begin{array}{r}
 244.191 \\
 + \underline{10.600} \\
 254.791
 \end{array}$$

$$\begin{array}{r}
 7b) \quad \overset{1}{2.350} \\
 \quad +4.256 \\
 \hline
 \quad 6.606
 \end{array}$$

a) They did not line up the decimal places

### 2-Digit by 1-Digit Multiplication (A)

Use the grid to help you multiply each pair of factors.

$$\begin{array}{r} 2 \\ 53 \\ \times 9 \\ \hline 477 \end{array}$$

$$\begin{array}{r} 93 \\ \times 3 \\ \hline 279 \end{array}$$

$$\begin{array}{r} 4 \\ 89 \\ \times 5 \\ \hline 445 \end{array}$$

$$\begin{array}{r} 2 \\ 73 \\ \times 7 \\ \hline 511 \end{array}$$

$$\begin{array}{r} 90 \\ \times 4 \\ \hline 360 \end{array}$$

$$\begin{array}{r} 3 \\ 37 \\ \times 5 \\ \hline 185 \end{array}$$

$$\begin{array}{r} 7 \\ 59 \\ \times 8 \\ \hline 472 \end{array}$$

$$\begin{array}{r} 4 \\ 36 \\ \times 8 \\ \hline 288 \end{array}$$

$$\begin{array}{r} 1 \\ 92 \\ \times 7 \\ \hline 644 \end{array}$$

$$\begin{array}{r} 4 \\ 97 \\ \times 7 \\ \hline 679 \end{array}$$

$$\begin{array}{r} 3 \\ 15 \\ \times 6 \\ \hline 90 \end{array}$$

$$\begin{array}{r} 6 \\ 97 \\ \times 9 \\ \hline 873 \end{array}$$

$$\begin{array}{r} 2 \\ 24 \\ \times 7 \\ \hline 168 \end{array}$$

$$\begin{array}{r} 21 \\ \times 2 \\ \hline 42 \end{array}$$

$$\begin{array}{r} 1 \\ 16 \\ \times 3 \\ \hline 48 \end{array}$$

$$\begin{array}{r} 4 \\ 46 \\ \times 7 \\ \hline 322 \end{array}$$

$$\begin{array}{r} 21 \\ \times 3 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 3 \\ 95 \\ \times 6 \\ \hline 570 \end{array}$$

$$\begin{array}{r} 12 \\ \times 8 \\ \hline 176 \end{array}$$

$$\begin{array}{r} 1 \\ 66 \\ \times 3 \\ \hline 198 \end{array}$$

$$\begin{array}{r} 40 \\ \times 3 \\ \hline 120 \end{array}$$

$$\begin{array}{r} 43 \\ \times 3 \\ \hline 129 \end{array}$$

$$\begin{array}{r} 2 \\ 34 \\ \times 6 \\ \hline 204 \end{array}$$

$$\begin{array}{r} 2 \\ 59 \\ \times 3 \\ \hline 177 \end{array}$$

$$\begin{array}{r} 8 \\ 59 \\ \times 9 \\ \hline 531 \end{array}$$

$$\begin{array}{r} 5 \\ 48 \\ \times 7 \\ \hline 336 \end{array}$$

$$\begin{array}{r} 3 \\ 87 \\ \times 5 \\ \hline 435 \end{array}$$

$$\begin{array}{r} 61 \\ \times 3 \\ \hline 183 \end{array}$$

$$\begin{array}{r} 2 \\ 15 \\ \times 4 \\ \hline 60 \end{array}$$

$$\begin{array}{r} 3 \\ 17 \\ \times 5 \\ \hline 85 \end{array}$$

### 2-Digit by 2-Digit Multiplication (A)

Use the grid to help you multiply each pair of factors.

$\begin{array}{r} 82 \\ \times 41 \\ \hline 3362 \end{array}$	$\begin{array}{r} 44 \\ \times 42 \\ \hline 1848 \end{array}$	$\begin{array}{r} 25 \\ \times 10 \\ \hline 250 \end{array}$	$\begin{array}{r} 93 \\ \times 86 \\ \hline 7998 \end{array}$
$\begin{array}{r} 72 \\ \times 87 \\ \hline 6264 \end{array}$	$\begin{array}{r} 43 \\ \times 10 \\ \hline 430 \end{array}$	$\begin{array}{r} 62 \\ \times 52 \\ \hline 3224 \end{array}$	$\begin{array}{r} 56 \\ \times 96 \\ \hline 5376 \end{array}$
$\begin{array}{r} 91 \\ \times 47 \\ \hline 4277 \end{array}$	$\begin{array}{r} 94 \\ \times 83 \\ \hline 7802 \end{array}$	$\begin{array}{r} 75 \\ \times 13 \\ \hline 976 \end{array}$	$\begin{array}{r} 34 \\ \times 98 \\ \hline 3332 \end{array}$
$\begin{array}{r} 23 \\ \times 48 \\ \hline 1104 \end{array}$	$\begin{array}{r} 44 \\ \times 62 \\ \hline 2728 \end{array}$	$\begin{array}{r} 79 \\ \times 97 \\ \hline 7663 \end{array}$	$\begin{array}{r} 99 \\ \times 65 \\ \hline 6435 \end{array}$

2-Digit by 2-Digit Multiplication (A)

Name: Key

Date: \_\_\_\_\_

Score: \_\_\_\_\_ /20

Calculate each product.

$$\begin{array}{r} \overset{3}{14} \\ \times 83 \\ \hline 42 \\ 1120 \\ \hline 1162 \end{array}$$

$$\begin{array}{r} \overset{1}{93} \\ \times 65 \\ \hline 465 \\ 5580 \\ \hline 6045 \end{array}$$

$$\begin{array}{r} \overset{8}{82} \\ \times 60 \\ \hline 00 \\ 4920 \\ \hline 4920 \end{array}$$

$$\begin{array}{r} 77 \\ \times 11 \\ \hline 77 \\ 770 \\ \hline 847 \end{array}$$

$$\begin{array}{r} \overset{5}{52} \\ \times 80 \\ \hline 00 \\ 4160 \\ \hline 4160 \end{array}$$

$$\begin{array}{r} \overset{3}{24} \\ \times 83 \\ \hline 72 \\ 1920 \\ \hline 1992 \end{array}$$

$$\begin{array}{r} \overset{4}{49} \\ \times 55 \\ \hline 245 \\ 2450 \\ \hline 2695 \end{array}$$

$$\begin{array}{r} \overset{2}{13} \\ \times 18 \\ \hline 104 \\ 130 \\ \hline 234 \end{array}$$

$$\begin{array}{r} \overset{3}{35} \\ \times 61 \\ \hline 35 \\ 2100 \\ \hline 2135 \end{array}$$

$$\begin{array}{r} \overset{2}{15} \\ \times 51 \\ \hline 15 \\ 750 \\ \hline 765 \end{array}$$

$$\begin{array}{r} 92 \\ \times 32 \\ \hline 184 \\ 2760 \\ \hline 2944 \end{array}$$

$$\begin{array}{r} \overset{3}{25} \\ \times 65 \\ \hline 125 \\ 1500 \\ \hline 1625 \end{array}$$

$$\begin{array}{r} \overset{3}{25} \\ \times 67 \\ \hline 175 \\ 1500 \\ \hline 1675 \end{array}$$

$$\begin{array}{r} \overset{4}{96} \\ \times 17 \\ \hline 672 \\ 960 \\ \hline 1632 \end{array}$$

$$\begin{array}{r} 24 \\ \times 11 \\ \hline 24 \\ 240 \\ \hline 264 \end{array}$$

$$\begin{array}{r} 60 \\ \times 21 \\ \hline 60 \\ 1200 \\ \hline 1260 \end{array}$$

$$\begin{array}{r} \overset{1}{13} \\ \times 34 \\ \hline 52 \\ 390 \\ \hline 442 \end{array}$$

$$\begin{array}{r} \overset{2}{28} \\ \times 53 \\ \hline 84 \\ 1400 \\ \hline 1484 \end{array}$$

$$\begin{array}{r} \overset{4}{37} \\ \times 76 \\ \hline 222 \\ 2590 \\ \hline 2812 \end{array}$$

$$\begin{array}{r} \overset{3}{57} \\ \times 57 \\ \hline 399 \\ 2850 \\ \hline 3249 \end{array}$$

**3-Digit by 2-Digit Multiplication (A)**

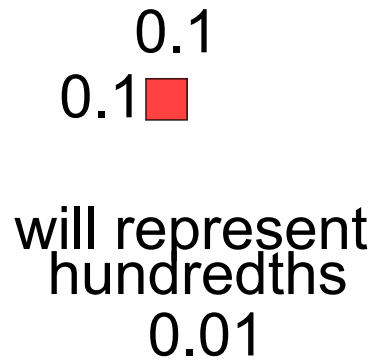
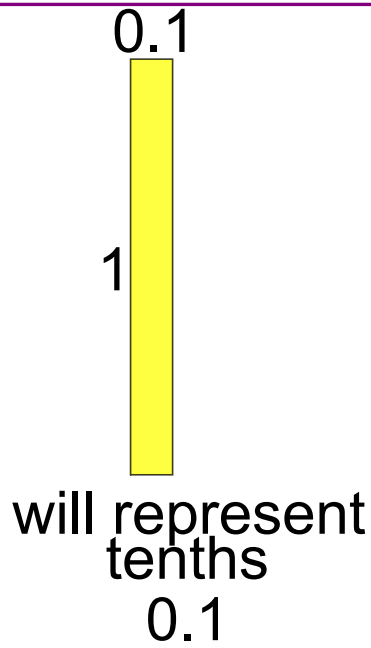
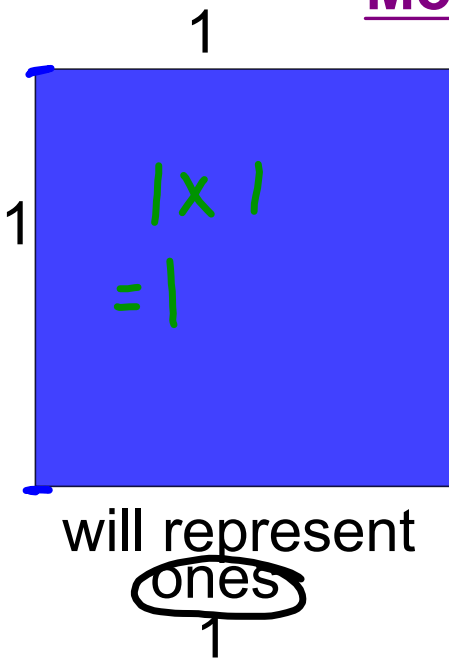
Name: Key Date: \_\_\_\_\_ Score: \_\_\_\_\_ /20

Calculate each product.

$\begin{array}{r} \overset{23}{435} \\ \times 72 \\ \hline 870 \\ 30450 \\ \hline 31320 \end{array}$	$\begin{array}{r} \overset{12}{325} \\ \times 54 \\ \hline 1300 \\ 16250 \\ \hline 17550 \end{array}$	$\begin{array}{r} \overset{32}{804} \\ \times 79 \\ \hline 7236 \\ 56280 \\ \hline 63516 \end{array}$	$\begin{array}{r} \overset{53}{908} \\ \times 47 \\ \hline 6356 \\ 36320 \\ \hline 42676 \end{array}$	$\begin{array}{r} \overset{4}{905} \\ \times 80 \\ \hline 000 \\ 72400 \\ \hline 72400 \end{array}$
$\begin{array}{r} \overset{62}{394} \\ \times 71 \\ \hline 394 \\ 27580 \\ \hline 27974 \end{array}$	$\begin{array}{r} \overset{33}{977} \\ \times 45 \\ \hline 4885 \\ 39080 \\ \hline 43965 \end{array}$	$\begin{array}{r} \overset{111}{256} \\ \times 32 \\ \hline 512 \\ 7680 \\ \hline 8192 \end{array}$	$\begin{array}{r} \overset{444}{989} \\ \times 55 \\ \hline 4945 \\ 49450 \\ \hline 54395 \end{array}$	$\begin{array}{r} \overset{63}{284} \\ \times 81 \\ \hline 284 \\ 22720 \\ \hline 23004 \end{array}$
$\begin{array}{r} \overset{23}{183} \\ \times 38 \\ \hline 1464 \\ 5490 \\ \hline 6954 \end{array}$	$\begin{array}{r} \overset{61}{592} \\ \times 78 \\ \hline 4736 \\ 41440 \\ \hline 46176 \end{array}$	$\begin{array}{r} 501 \\ \times 36 \\ \hline 3006 \\ 15030 \\ \hline 18036 \end{array}$	$\begin{array}{r} \overset{154}{428} \\ \times 57 \\ \hline 2996 \\ 21400 \\ \hline 24396 \end{array}$	$\begin{array}{r} \overset{12}{640} \\ \times 54 \\ \hline 2560 \\ 32000 \\ \hline 34560 \end{array}$
$\begin{array}{r} \overset{33}{788} \\ \times 49 \\ \hline 7092 \\ 31520 \\ \hline 38612 \end{array}$	$\begin{array}{r} \overset{2}{205} \\ \times 15 \\ \hline 1025 \\ 2050 \\ \hline 3075 \end{array}$	$\begin{array}{r} \overset{111}{422} \\ \times 97 \\ \hline 2954 \\ 37980 \\ \hline 40934 \end{array}$	$\begin{array}{r} \overset{573}{169} \\ \times 48 \\ \hline 1352 \\ 6760 \\ \hline 8112 \end{array}$	$\begin{array}{r} \overset{7}{891} \\ \times 87 \\ \hline 6237 \\ 71280 \\ \hline 77517 \end{array}$

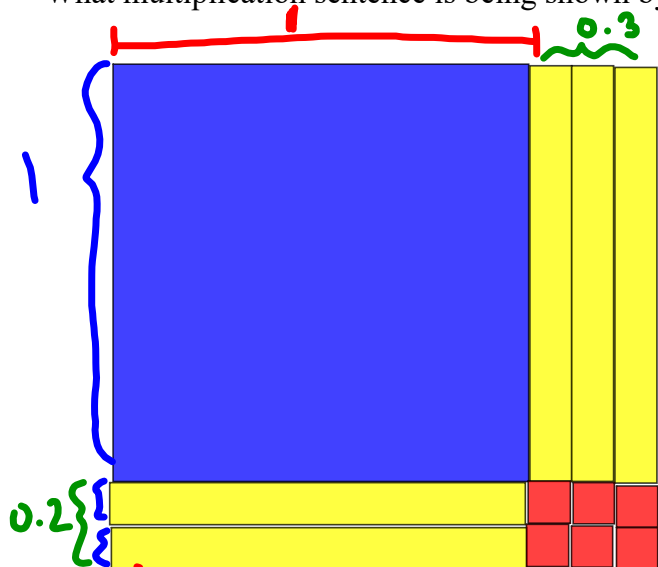
## Models for Decimal

with dimensions





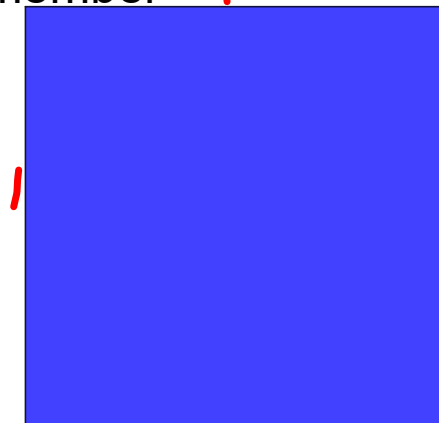
What multiplication sentence is being shown by the diagram? read top then side



Top  $1.3 \times 1.2 =$

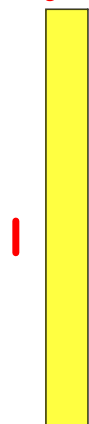
1	ones	1.00
5	tenths	0.50
6	hundredths	0.06
	+	
		1.56

remember 1



represent 1

0.1



represent tenth

0.1

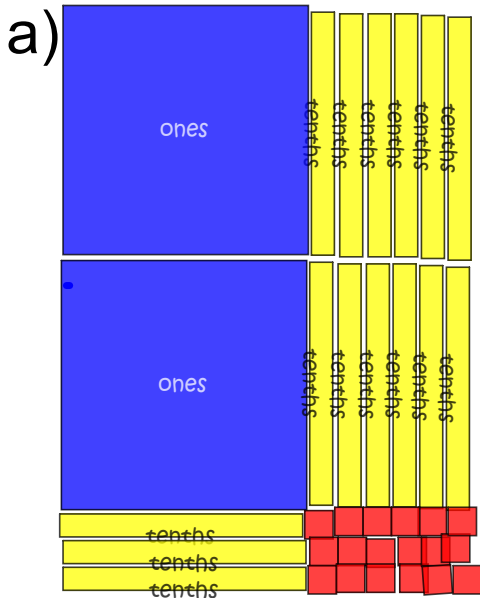


represents hundredth

$$1.3 \times 1.2$$

Remove  
decimal  
use as whole

$$\begin{array}{r} 13 \\ \times 12 \\ \hline 26 \\ + 130 \\ \hline 1.56 \end{array}$$

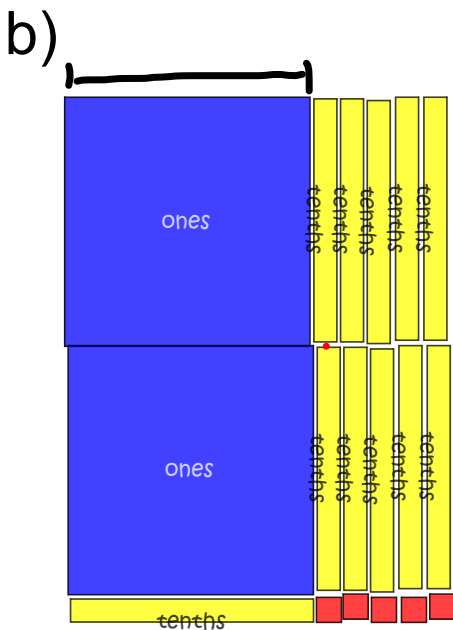


list the ones, tenths & hundredths

$1.6 \times 2.3$

$$\begin{array}{r}
 \underline{2} \text{ ones} = 2.00 \\
 \underline{15} \text{ tenths} = 1.50 \\
 \underline{18} \text{ hundredths} = 0.18 \\
 + \\
 \text{sum } 3.68
 \end{array}$$

show multiplication the regular way



$1.5 \times 2.1$

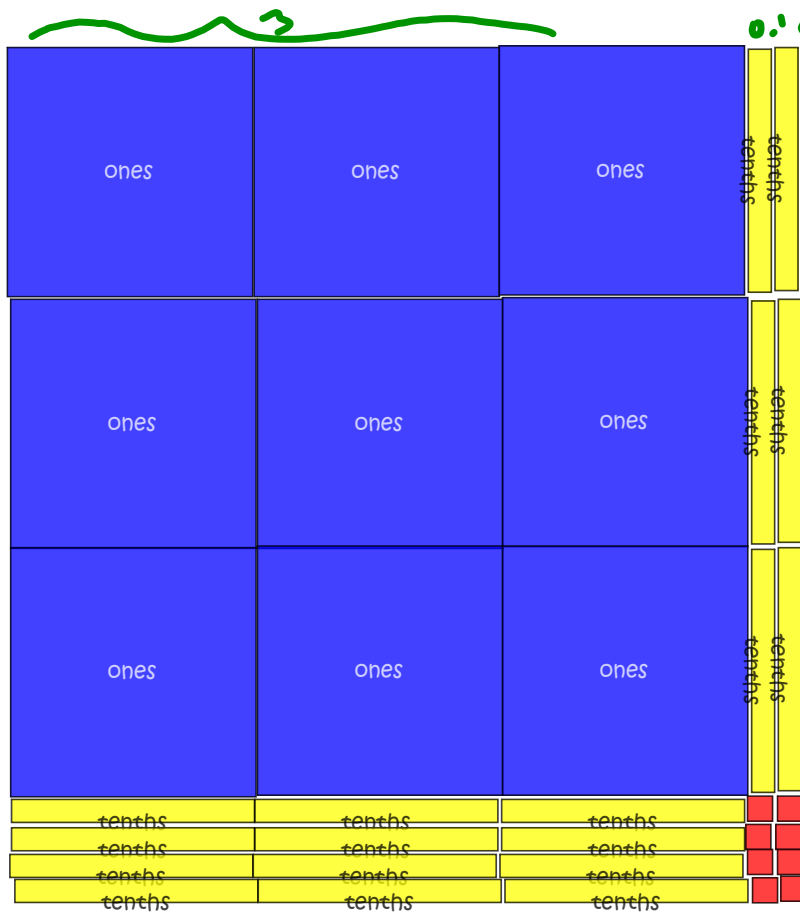
$$\begin{array}{r}
 \underline{2} \text{ ones} = 2.00 \\
 \underline{15} \text{ tenths} = 1.10 \\
 \underline{5} \text{ hundredths} = 0.05 \\
 \text{sum } \underline{\underline{3.15}}
 \end{array}$$

show multiplication the regular way

$$\begin{array}{r} 1.6 \times 2.3 \\ \hline \begin{array}{r} 16 \\ \times 23 \\ \hline 48 \\ 320 \\ \hline 3.68 \end{array} \end{array}$$

$$1.5 \times 2.1$$

$$\begin{array}{r} 15 \\ \times 21 \\ \hline 15 \\ 300 \\ \hline 3.15 \end{array}$$



0.1 0.1

$3.2 \times 3.4$

9 ones = 9.00

18 tenths = 1.80

8 hundredths = 0.08

10.88

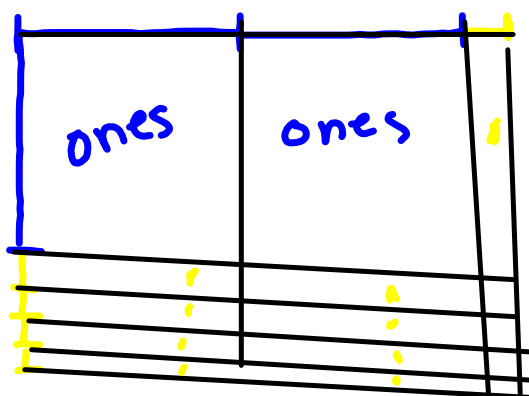
sum

DO IT OUT NORMALLY

$$\begin{array}{r}
 32 \\
 \times 34 \\
 \hline
 128 \\
 + 960 \\
 \hline
 1088
 \end{array}$$

Model the following multiplication

$$2.1 \times 1.4$$

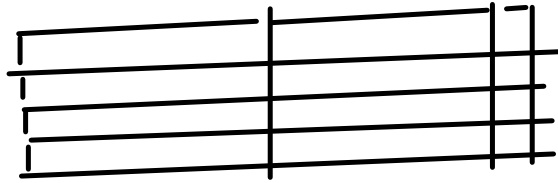


$$\begin{array}{r}
 2 \text{ ones} \quad 2.00 \\
 9 \text{ tenths} \quad \underline{0.90} \\
 4 \text{ hundredths} \quad \underline{+ 0.04} \\
 \hline
 2.94
 \end{array}$$

$$\begin{array}{r}
 2.1 \\
 \times 1.4 \\
 \hline
 84 \\
 210 \\
 \hline
 2.94
 \end{array}$$

Model the following multiplication

$$2.1 \times 0.4$$



$$\begin{array}{r} 2.1 \\ \times 0.4 \\ \hline .84 \end{array}$$

0 ones	0.00
8 tenths	0.80
4 hundredths	0.04
	+
	<hr/>
	0.84

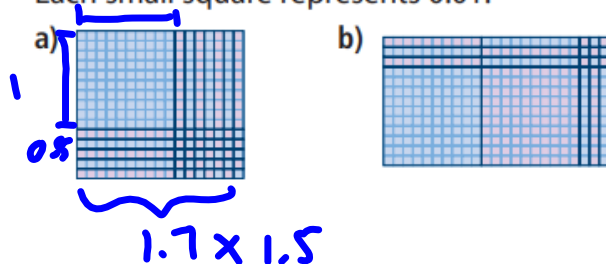
Homework pg. 102 #1ab, 2abc (You have to model for #2)



## Page 102

1. Write the product that each picture represents.

Each small square represents 0.01.



2. Use Base Ten Blocks to find each product.

Record your work on grid paper.

a)  $2.6 \times 1.5$

b)  $2.3 \times 0.4$

c)  $0.8 \times 0.7$

## Attachments

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Extra Practice 3 Estimating Decimals PDF.pdf