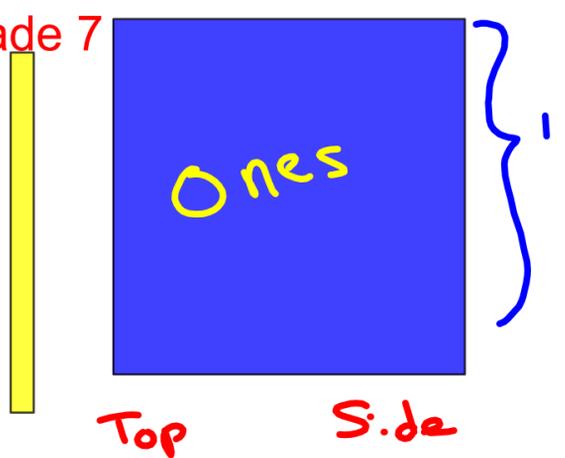
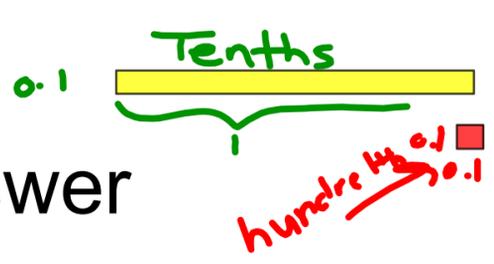


Warm Up Grade 7

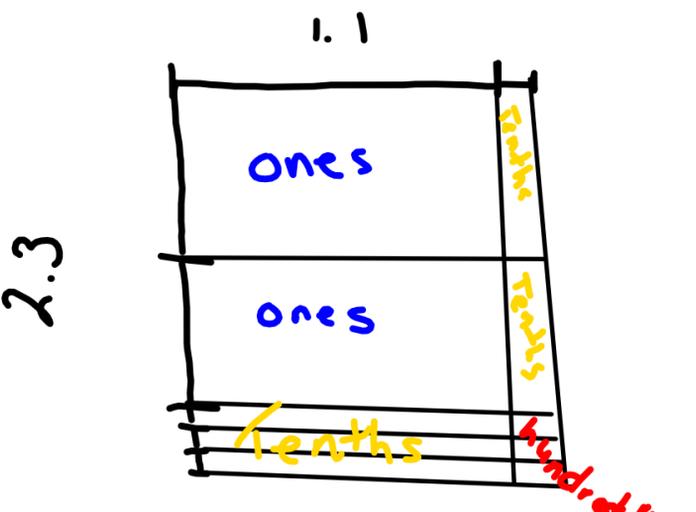


Model and answer

a) 1.1×2.3

long (under 1.1), *short* (under 2.3)

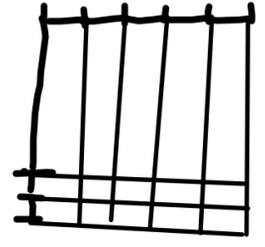
long (under 1.1), *short* (under 2.3)



| | | | | |
|----------|------------|-------|----------|----------|
| <u>2</u> | ones | 2. | 0 | 0 |
| <u>5</u> | tenths | 0. | <u>5</u> | 0 |
| <u>3</u> | hundredths | 0. | <u>0</u> | <u>3</u> |
| | | <hr/> | | |
| | | 2.53 | | |

$1.1 \times 2.3 \Rightarrow 2.53$

b) 0.5×1.2



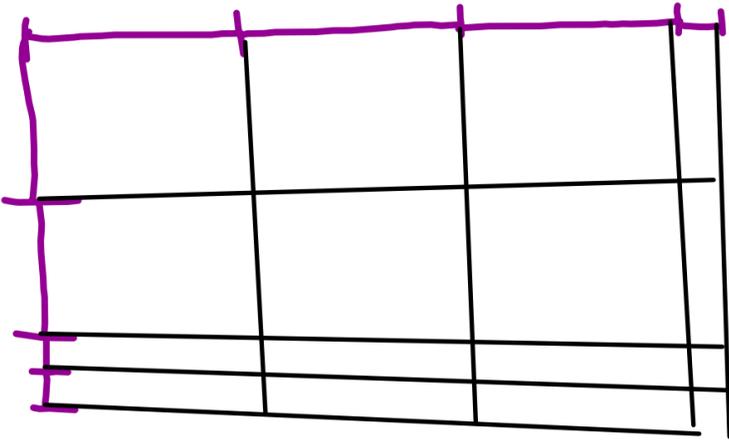
| | | | | |
|-----------|------------|-------|----------|----------|
| <u>0</u> | ones | 0. | 0 | 0 |
| <u>5</u> | tenths | 0. | <u>5</u> | 0 |
| <u>10</u> | hundredths | 0. | <u>1</u> | <u>0</u> |
| | | <hr/> | | |
| | | 0.60 | | |

$0.5 \times 1.2 = 0.60$

3.1

3.1 x 2.2

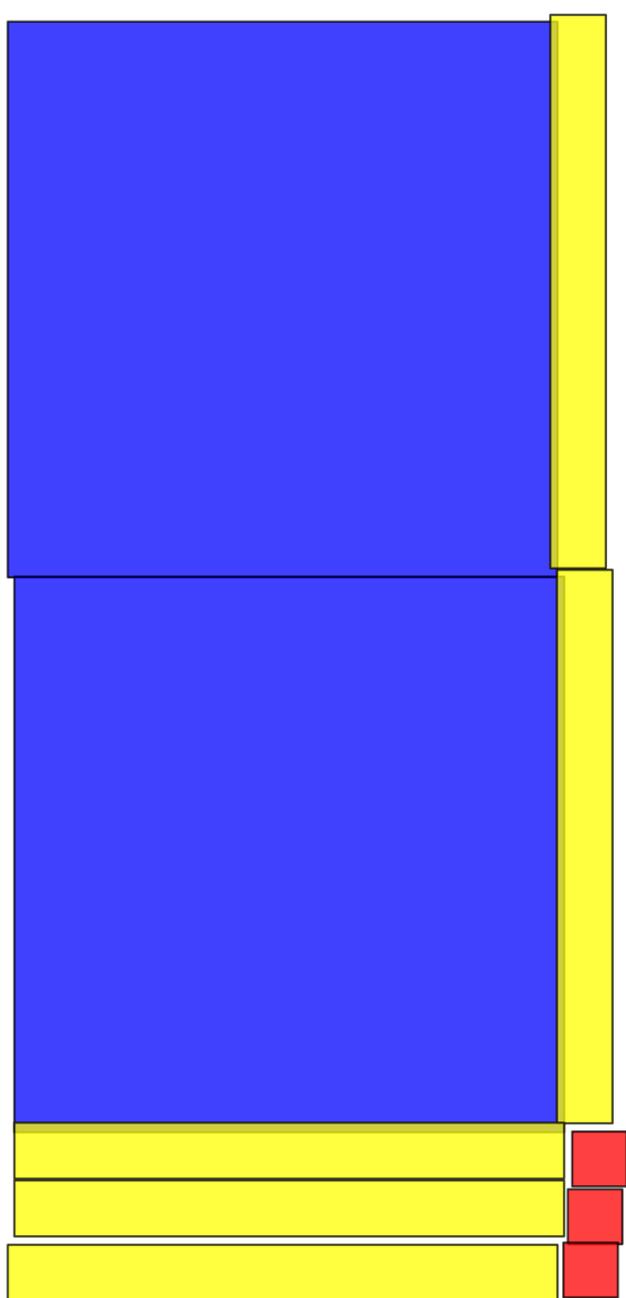
2.2



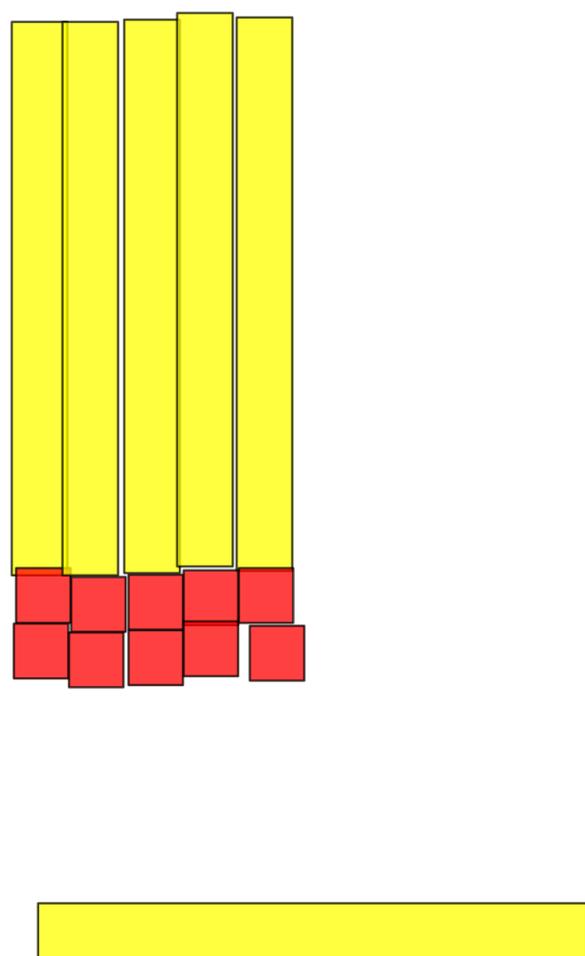
Warm Up Grade 7 solutions

Model and answer

a) 1.1×2.3

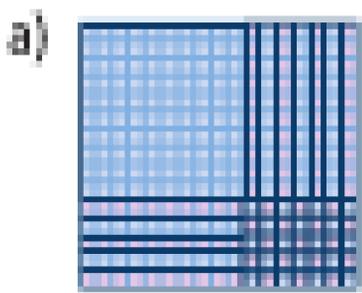


b) 0.5×1.2

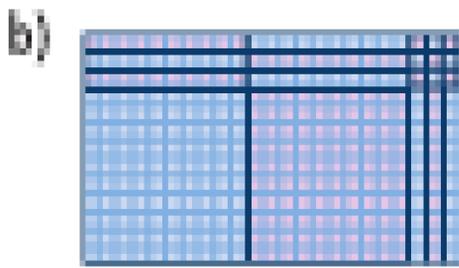


1. Write the product that each picture represents.

Each small square represents 0.01.

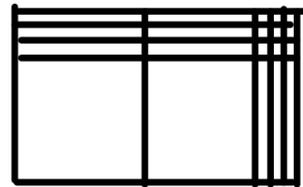


1.7×1.5
1 whole
12 tenths
35 hundredths



$+ 1.2$
 $+ 0.35$
2.55

2.3×1.3
2 wholes
3 tenths
9 hundredths
 $+ 0.9$
0.09
2.99



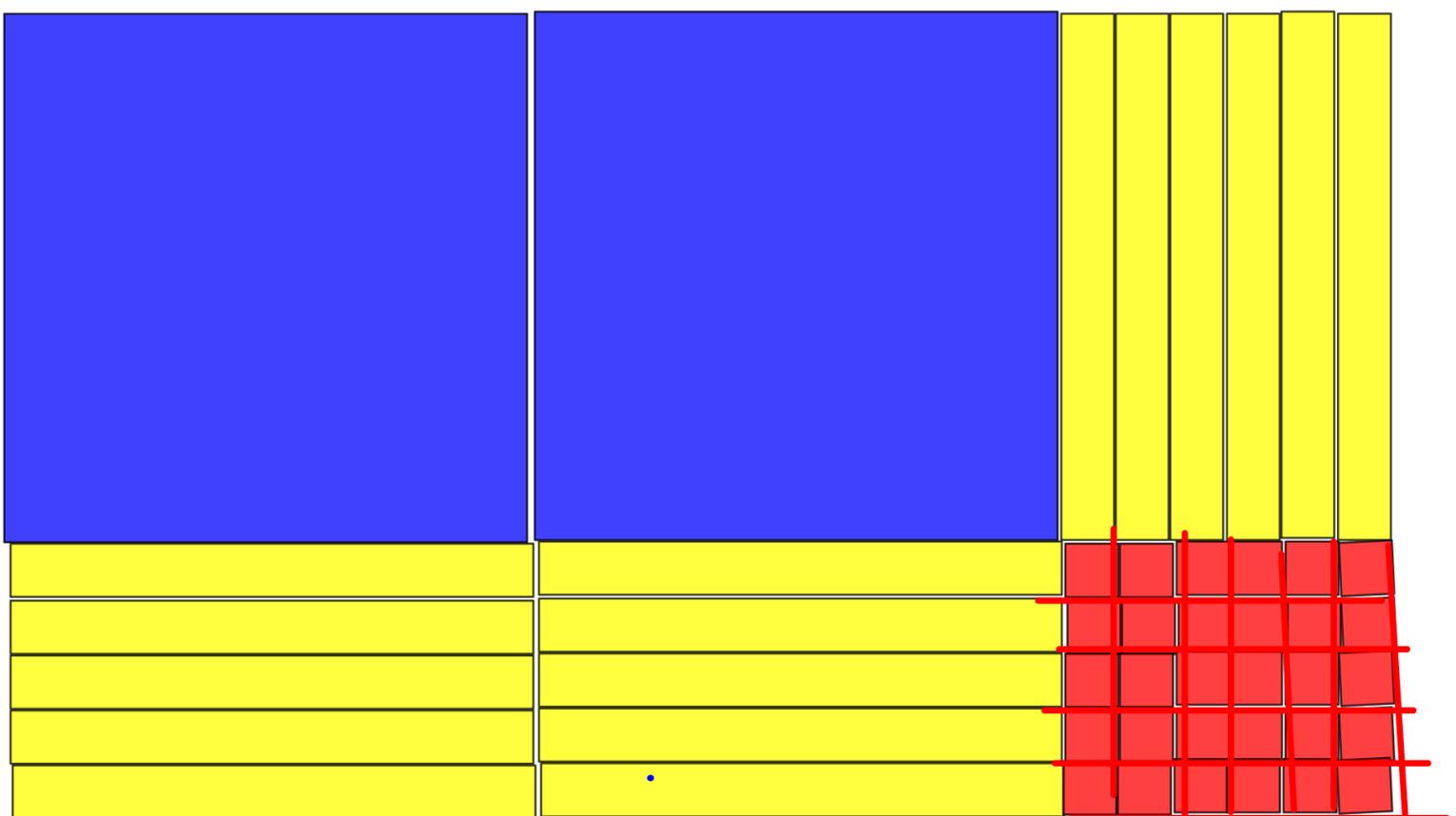
2. Use Base Ten Blocks to find each product.

Record your work on grid paper.

a) 2.6×1.5

b) 2.3×0.4

c) 0.8×0.7

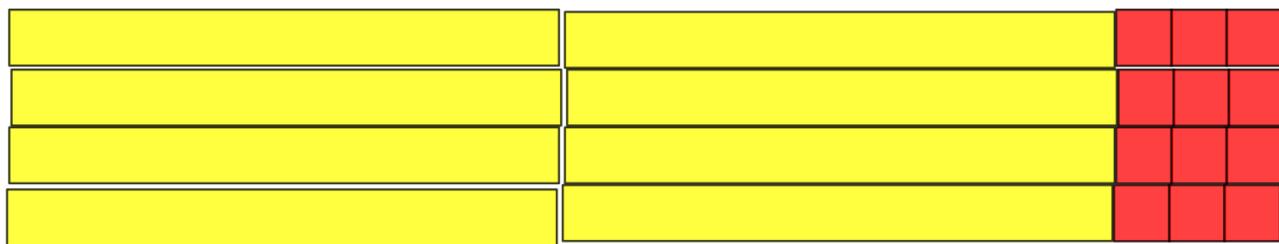


2 wholes
16 tenths
30 hundredths
 $+ 1.6$
 $+ 0.30$
3.90

3. Choose one part from question 2.

Explain how the Base Ten Blocks show the product.

b) 2.3×0.4

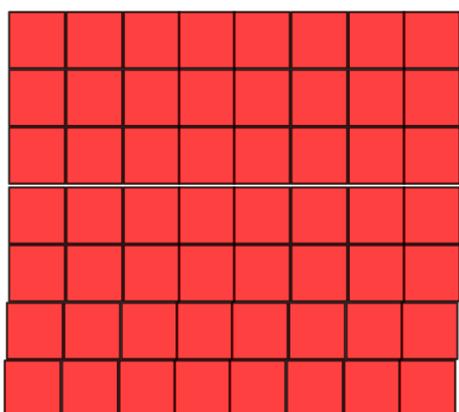


8 tenths
12 hundredths

0.8
 $+ 0.12$
0.92

2.3
 $\times 0.4$
0.92

c) 0.8×0.7



56 hundredths
0.56

0.8
 $\times 0.7$
0.56

Ex) 2.34×1.2

Multiplying Decimals

1. Multiply like whole numbers. Think 234×12
2. Count decimal places in the problem.
3. Put the same number of places behind the decimal in the product.

$$\begin{array}{r} 2.34 \\ \times 1.2 \\ \hline 2.808 \end{array}$$

2 decimal places
+ 1 decimal place

3 decimal places

You multiply decimals the same way you multiply whole, but you have to remember to put the decimal in the proper position in your answer.

Step 1) Write the numbers stacked on top of each other.

(The last digits NEED to line up)

Step 2) Multiply like you have done before

Step 3) Place decimal in final answer by using estimation or counting decimals

Try the following:

(a) $2.46 \times 0.58 = 1.4268$

$$\begin{array}{r}
 \begin{array}{r}
 \overset{2}{2} \overset{3}{4} \overset{6}{6} \\
 \times \quad \quad \quad \overset{1}{5} \overset{2}{8} \\
 \hline
 \overset{1}{1} \overset{9}{9} \overset{6}{6} \overset{8}{8} \\
 + \overset{1}{1} \overset{2}{2} \overset{3}{3} \overset{0}{0} \overset{\otimes}{8} \\
 \hline
 \overset{1}{1} \overset{4}{4} \overset{2}{2} \overset{6}{6} \overset{8}{8}
 \end{array}
 \end{array}$$

(b) $3.9 \times 1.68 = 6.552$

$$\begin{array}{r}
 \overset{2}{2} \overset{2}{6} \overset{8}{8} \\
 \times \quad \quad \quad \overset{3}{3} \overset{9}{9} \\
 \hline
 \overset{1}{1} \overset{5}{5} \overset{1}{1} \overset{2}{2} \\
 + \overset{5}{5} \overset{0}{0} \overset{4}{4} \overset{\otimes}{2} \\
 \hline
 \overset{6}{6} \overset{5}{5} \overset{5}{5} \overset{2}{2}
 \end{array}$$

$$\begin{array}{r}
 \overset{1}{3} \overset{4}{4} \overset{5}{5} \\
 \times \quad \quad \quad \overset{2}{2} \overset{4}{4} \overset{7}{7} \\
 \hline
 \overset{1}{1} \overset{2}{2} \overset{4}{4} \overset{1}{1} \overset{5}{5} \\
 + \overset{1}{1} \overset{3}{3} \overset{8}{8} \overset{0}{0} \overset{0}{0} \\
 + \overset{6}{6} \overset{9}{9} \overset{0}{0} \overset{0}{0} \overset{0}{0} \\
 \hline
 \overset{6}{6} \overset{5}{5} \overset{2}{2} \overset{1}{1} \overset{5}{5}
 \end{array}$$

c) $34 \times 25 = 850$

$$\begin{array}{r}
 \overset{5}{5} \overset{3}{3} \overset{9}{9} \\
 \times \quad \quad \quad \overset{1}{1} \overset{6}{6} \overset{8}{8} \\
 \hline
 \overset{3}{3} \overset{1}{1} \overset{2}{2} \\
 + \overset{2}{2} \overset{3}{3} \overset{4}{4} \overset{0}{0} \\
 + \overset{3}{3} \overset{9}{9} \overset{0}{0} \overset{0}{0} \\
 \hline
 \overset{6}{6} \overset{5}{5} \overset{5}{5} \overset{2}{2}
 \end{array}$$

Worksheet

(Next page is
same WS Line Up
lined up

1) 5.52×31.6

2) 16.0×7.53

3) 1.44×5.14

4) 63.5×8.24

5) 908×72.8

6) 40.6×8.41

7) 34.7×54.0

8) 1.15×6.61

9) 66.7×7.09

$$\begin{array}{r}
 \begin{array}{r}
 \overset{1}{5} \overset{4}{5} 2 \\
 \times 316 \\
 \hline
 3312 \\
 5520 \\
 16560 \\
 \hline
 174432
 \end{array}
 \end{array}$$

$$\begin{aligned}
 5.52 \times 31.6 \\
 = 174.432
 \end{aligned}$$

$$\begin{aligned}
 552 \times 316 &= 174432 \\
 \checkmark 5.52 \times 31.6 &= 174.432
 \end{aligned}$$

$$\begin{array}{r} 5.52 \\ \times 31.6 \\ \hline \end{array}$$

$$\begin{array}{r} 16.0 \\ \times 7.53 \\ \hline \end{array}$$

$$\begin{array}{r} 1.44 \\ \times 5.14 \\ \hline \end{array}$$

$$\begin{array}{r} 63.5 \\ \times 8.24 \\ \hline \end{array}$$

$$\begin{array}{r} 90.8 \\ \times 72.8 \\ \hline \end{array}$$

$$\begin{array}{r} 40.6 \\ \times 8.41 \\ \hline \end{array}$$

$$\begin{array}{r} 34.7 \\ \times 54.0 \\ \hline \end{array}$$

$$\begin{array}{r} 1.15 \\ \times 6.61 \\ \hline \end{array}$$

$$\begin{array}{r} 66.7 \\ \times 7.09 \\ \hline \end{array}$$

Class/Homework

Finish the previous page

THEN Tomorrow

Page 102

#4, #5, #7, #9, #10, #12

Page 102

4. Multiply. Use a rectangle model.

a) 4.2×3.7

b) 8.9×0.3

c) 0.6×0.9

5. A rectangular plot of land measures 30.5 m by 5.3 m.

What is the area of the plot?

Estimate to check your answer is reasonable.



6. Multiply. Describe any patterns you see.

a) 8.36×10

8.36×100

8.36×1000

$8.36 \times 10\,000$

b) 8.36×0.1

8.36×0.01

8.36×0.001

8.36×0.0001

- 7. Assessment Focus** An area rug is rectangular. Its dimensions are 3.4 m by 2.7 m. Show different strategies you can use to find the area of the rug. Which strategy is best? Justify your answer.



- 9.** The fuel consumption estimates of Josie's car are:
City: 21.2 km/L Highway: 23.3 km/L
The car's gas tank holds 40.2 L of fuel.
- How far could Josie drive on a full tank of gas on the highway before she runs out of fuel?
 - How far could she drive on a full tank of gas in the city?
What assumptions did you make?

10. Find the cost of each item at the Farmers' Market.
Which strategy will you use? Justify your choice.

a) 2.56 kg of apples at \$0.95/kg

b) 10.5 kg of potatoes at \$1.19/kg

c) 0.25 kg of herbs at \$2.48/kg

12. a) Multiply 18×12 .

b) Use only the result from part a and estimation.

Find each product.

i) 1.8×12

ii) 18×0.12

iii) 0.18×12

iv) 0.18×0.12