



Warm Up Grade 7

Date: Oct 5, 2026

1) Jim and Karen are raising money for their local food bank. Karen collected \$123.24 on the first day, \$56.09 on the second and \$91.21 on the third day. Jim collected \$301.70 in total.

a) Who collected more money?

Jim collected more.

Karen

Jim 301.70

123.24

56.09

+ 91.21

270.54

b) How much more?

~~301.70~~

- 270.54

31.16

Jim collected \$31.16 more.

Homework Solutions

1. Use front-end estimation to estimate each sum or difference.

a) $2.876 - 0.975$

b) $71.382 + 6.357$

c) $125.12 + 37.84$

d) $9.7 - 1.36$

a) $\approx \begin{array}{r} 3 - 1 \\ 2 \end{array}$

b) $\approx \begin{array}{r} 71 + 6 \\ 77 \end{array}$

$\approx \begin{array}{r} 71.4 + 6.4 \\ 77.8 \end{array}$

c) $\approx \begin{array}{r} 125 + 38 \\ 163 \end{array}$

$\approx \begin{array}{r} 125 + 35 \\ 160 \end{array}$

d) $\approx \begin{array}{r} 9.7 - 1.4 \\ 8.3 \end{array}$

$\approx \begin{array}{r} 10 - 1 \\ 9 \end{array}$

← better
 $\approx \begin{array}{r} 9.5 - 1.5 \\ 8 \end{array}$

2. The tallest building in the world is the Taipei 101 in Taiwan. Its height is 0.509 km. The tallest building in North America is the Sears Tower in Chicago, USA. Its height is 0.442 km. What is the difference in the heights of the buildings?

$$\begin{array}{r} 0. \overset{4}{\cancel{5}} \overset{1}{\cancel{0}} 9 \\ - 0. 442 \\ \hline 0.067 \text{ km} \end{array}$$

sum - adding
difference - subtracting

3. Four classes of students from Mackenzie School are planning **Homework Solutions**

a field trip. The total cost of the trip is \$1067.50.

To date, the classes have raised: \$192.18, \$212.05, \$231.24, \$183.77

a) How much money have the classes raised so far?

b) How much more money do the classes need to raise in total?

Show your work.

$$\approx 190 + 210 + 230 + 180 = 810$$

$$\begin{array}{r} \text{a) } 192.18 \\ 212.05 \\ 231.24 \\ 183.77 \\ \hline \$819.24 \end{array}$$

$$\begin{array}{r} \text{b) } 1067.50 \\ - 819.24 \\ \hline \$248.26 \end{array}$$

$$\approx 1070 - 820 = 250$$

4. **Assessment Focus** A baker wants to make 3 different kinds of chocolate chip cookies. The recipes call for 2.75 kg, 4.4 kg, and 5.55 kg of chocolate chips. The baker has 10.5 kg of chocolate chips.

a) How many kilograms of chocolate chips does the baker need?

Estimate to check your answer is reasonable.

b) Does the baker have enough chocolate chips to make the cookies?

How do you know?

c) The baker wants to follow the recipes exactly.

If your answer to part b is no, how many more kilograms of chocolate chips are needed? If your answer to part b is yes, how many kilograms of chocolate chips will the baker have left over?

$$\begin{array}{r} \text{a) } 2.75 \\ 4.40 \\ + 5.55 \\ \hline 12.70 \end{array}$$

$$\approx 3 + 4 + 5.5 = 12.5$$

b) No, he does not have enough

$$\begin{array}{r} \text{c) } 12.70 \\ - 10.50 \\ \hline 2.20 \end{array}$$

He needs another 2.2 kg

5. Estimate, then calculate, the sum below.

Explain how you estimated.

$$46.71 + 3.9 + 0.875$$

$$\approx 46 + 4 + 1$$
$$51$$

I knew $46 + 4 = 50$
which is an easy
number to work with

Homework Solutions

$$\begin{array}{r} 46.710 \\ 3.900 \\ + 0.875 \\ \hline 51.485 \end{array}$$

6. The Robb family and the Chan family have similar homes.

The Robb family sets its thermostat to 20°C during the winter months.

Its monthly heating bills were: \$171.23, \$134.35, and \$123.21

The Chan family used a programmable thermostat to lower the

temperature at night, and during the day when the family was out.

The Chan family's monthly heating bills were: \$134.25, \$103.27,
and \$98.66

a) How much money did each family pay to heat its home
during the winter months?

b) How much more money did the Robb family pay?

Estimate to check your answer is reasonable.

c) What other things could a family do to reduce its heating costs?

Robb Family

$$\begin{array}{r} 171.23 \\ 134.35 \\ 123.21 \\ \hline 428.79 \end{array}$$

Chan Family

$$\begin{array}{r} 134.25 \\ 103.27 \\ 98.66 \\ \hline 336.18 \end{array}$$

b)

$$\begin{array}{r} 428.79 \\ - 336.18 \\ \hline 92.61 \end{array}$$

$$\approx 430 - 335$$
$$95$$



7. Find two numbers with a difference of 151.297.

$$\begin{array}{r} 151.297 \\ + 10.123 \\ \hline 161.420 \end{array}$$

2 numbers with a difference of 151.297 are 161.420 and 10.123

8. Use each of the digits from 0 to 7 once to make this addition true.

Find as many different answers as you can.

$$\begin{array}{r} \square.\square\square\square \\ + \square.\square\square\square \\ \hline 5.788 \end{array}$$

$$\begin{array}{r} 0.321 \\ 5.467 \\ \hline 5.788 \end{array}$$

$$\begin{array}{r} 1.725 \\ + 4.063 \\ \hline 5.788 \end{array}$$

$$\begin{array}{r} 5.476 \\ 0.312 \\ \hline 5.788 \end{array}$$

$$\begin{array}{r} 0.327 \\ 5.461 \\ \hline \end{array}$$

9. A student subtracted 0.373 from 4.81 and got the difference 0.108.

a) What mistake did the student make?

b) What is the correct answer?

$$\begin{array}{r} 4.81 \\ - 0.373 \\ \hline 0.108 \end{array}$$

He didn't line up the decimal points

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

Homework Solutions

10. Two 4-digit numbers were added. Their sum was 3.3.

What could the numbers have been?

Find as many different answers as you can. Show your work.

$$\begin{array}{r} \overset{1}{1} . \overset{1}{1} \overset{4}{4} \overset{3}{3} \\ + \overset{2}{2} . \overset{1}{1} \overset{5}{5} \overset{7}{7} \\ \hline 0 0 \end{array}$$

$$\begin{array}{r} \overset{1}{0} . \overset{1}{7} \overset{1}{6} \overset{5}{5} \\ + \overset{2}{2} . \overset{5}{5} \overset{3}{3} \overset{5}{5} \\ \hline 0 \end{array}$$

11. **Take It Further** Find each pattern rule. Explain how you found it.

a) 2.09, 2.13, 2.17, 2.21, ... add 0.04 each time

b) 5.635, 5.385, 5.135, 4.885, ...

subtract 0.25 each time.

Reflect

How did your knowledge of estimation help you in this lesson?

WS solutions EXTRA

Grade 7 Extra Practice: Adding and Subtracting Decimals

Name: _____ Date: _____

1. Estimate each sum or difference using front-end estimation.

a) $18.47 + 2.9 + 1.26 = \underline{\approx 21}$

b) $45.08 + 3.7 + 0.95 = \underline{\approx 48}$

c) $12.8 - 6.3 = \underline{\approx 6}$

d) $70.5 - 8.09 = \underline{\approx 62}$

Front-End

a) $18 + 2 + 1 = 21$

b) $45 + 3 + 0 = 48$

c) $12 - 6 = 6$

d) $70 - 8 = 62$

Rounded

a) $18 + 3 + 1 = 22$

b) $45 + 4 + 1 = 50$

c) $13 - 6 = 7$

d) $70 - 8 = 62$

2. Add or subtract. Use estimation to check that each answer is reasonable.

a) $14.68 + 3.45 + 0.9 = \underline{19.03}$

b) $9.72 - 4.58 = \underline{5.14}$

c) $8.4 - 2.76 = \underline{5.64}$

d) $105.07 + 6.8 + 0.39 = \underline{112.26}$

2a)

$$\begin{array}{r} 14.68 \\ + 3.45 \\ + 0.90 \\ \hline 19.03 \end{array}$$

Est Front-End
 $14 + 3 + 0 \approx 17$

2b)

$$\begin{array}{r} 9.72 \\ - 4.58 \\ \hline 5.14 \end{array}$$

Front-end
 $9 - 4 = 5$

c)

$$\begin{array}{r} 8.40 \\ - 2.76 \\ \hline 5.64 \end{array}$$

Front-end
 $8 - 2 = 6$

d)

$$\begin{array}{r} 105.07 \\ + 6.80 \\ + 0.39 \\ \hline 112.26 \end{array}$$

Front-End
 $105 + 6 + 0 = 111$

WS solutions EXTRA

3. A grocery cart contains 2.75 kg of apples, 1.6 kg of oranges, 3.48 kg of potatoes, and 0.95 kg of carrots. What is the total mass? Estimate to check your answer.

$$\begin{array}{r}
 2.75 \\
 1.60 \\
 + 3.48 \\
 + 0.95 \\
 \hline
 8.78
 \end{array}$$

Total
mass
is
8.78 kg

Est
Front-End
 $2 + 1 + 3 + 0 = 6$

Rounding
 $3 + 2 + 3 + 1 = 9$

4. One bike trail is 12.85 km long and another is 18.42 km long. How much longer is the second trail?

$$\begin{array}{r}
 18.42 \\
 - 12.85 \\
 \hline
 5.57
 \end{array}$$

The second trail
is 5.57 km
longer.

5. A notebook costs \$4.89 and a pack of pencils costs \$2.75. How much do they cost altogether?

$$\begin{array}{r}
 4.89 \\
 + 2.75 \\
 \hline
 7.64
 \end{array}$$

Total cost
was \$7.64.

WS solutions EXTRA

6. Find two different decimal numbers whose sum is 321.764.

$$\begin{array}{r} 211.431 \\ + 110.333 \\ \hline 321.764 \end{array}$$

7. A student added $5.27 + 3.456$ and got 8.183. a) What mistake might the student have made? b) What is the correct answer?

$$\begin{array}{r} b) \quad 5.270 \\ + 3.456 \\ \hline 8.726 \end{array}$$

Addition fact errors
or
Not line up decimal

8. Solve.

- a) $23.405 + 8.79 = 32.395$
 b) $41.2 - 19.875 = 61.075$
 c) $0.95 + 14.607 + 2.1 = 17.657$
 d) $75.04 - 29.68 = 85.36$

$$\begin{array}{r} a) \quad 23.405 \\ + 8.790 \\ \hline 32.395 \end{array}$$

$$\begin{array}{r} b) \quad 41.200 \\ + 19.875 \\ \hline 61.075 \end{array}$$

$$\begin{array}{r} c) \quad 0.950 \\ 14.607 \\ + 2.100 \\ \hline 17.657 \end{array}$$

$$\begin{array}{r} d) \quad 75.04 \\ - 29.68 \\ \hline 85.36 \end{array}$$

WS solutions EXTRA

9. The school fundraiser collected \$128.75 on Monday, \$94.60 on Tuesday, and \$116.85 on Wednesday. How much was collected in total?

$$\begin{array}{r}
 128.75 \\
 + 94.60 \\
 \hline
 223.35 \\
 + 116.85 \\
 \hline
 340.20
 \end{array}$$

Total money
collected is

\$ 340.20

10. A water tank contained 350.5 L of water. After using 128.75 L, how much water remained?

$$\begin{array}{r}
 350.50 \\
 - 128.75 \\
 \hline
 221.75
 \end{array}$$

There is 221.75 L
of water left.

Name : _____

Score : _____

Decimals

Sub: 51

- 1) Angie spent \$131.56 on groceries during the week preceding Christmas. During the Christmas week, her grocery expenses reduced to \$56.91 as she was out of town for a few days. How much more money did Angie spend on groceries during the week before Christmas than the following week?



- 2) Sharon takes her 2 kids, Ken and Ben to the doctor's office to fill the health form given at school. Ken is 4.01 feet tall and Ben is 3.71 feet tall. How much taller is Ken than Ben?



- 3) Lily takes up a new year resolution to lose weight. She weighed 164.76 pounds on January 1st, 2017. Lily goes on a low-carb diet and works out in the gym. On January 31st, 2017, she weighs 159.34 pounds. How many pounds did Lily lose in a month?



- 4) The tallest tree among the redwoods situated in California measures 379.7 feet. The tallest tree among the mountain-ash species in Australia stands at 326.77 feet. What is the difference in height between the two trees?



- 5) Jake lives in Philadelphia and plans to attend his high school reunion in Connecticut, which is 190.8 miles away. He drives 105.7 miles and reaches New York City. How many more miles does Jake have to drive, to attend his high school reunion in Connecticut?



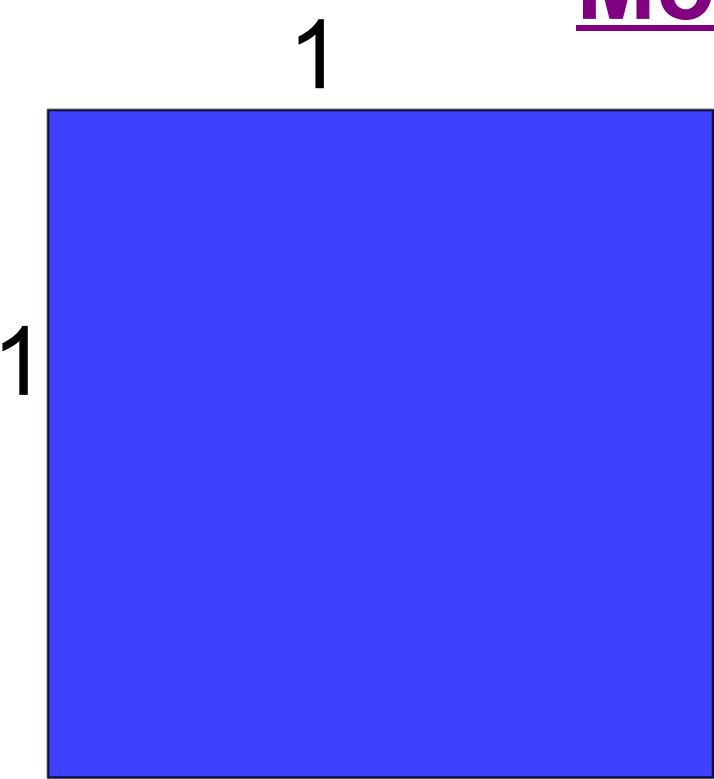
Class/Homework

Extra Practice 3 :Estimating Decimals

Test Tomorrow

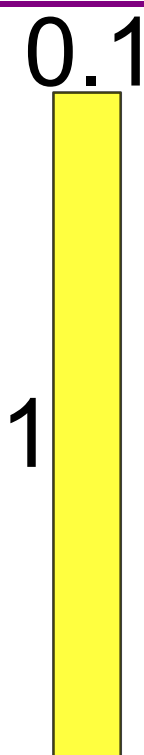
Models for Decimal

with dimensions



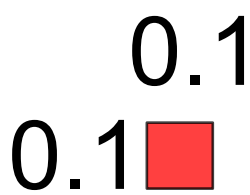
will represent
ones

1



will represent
tenths

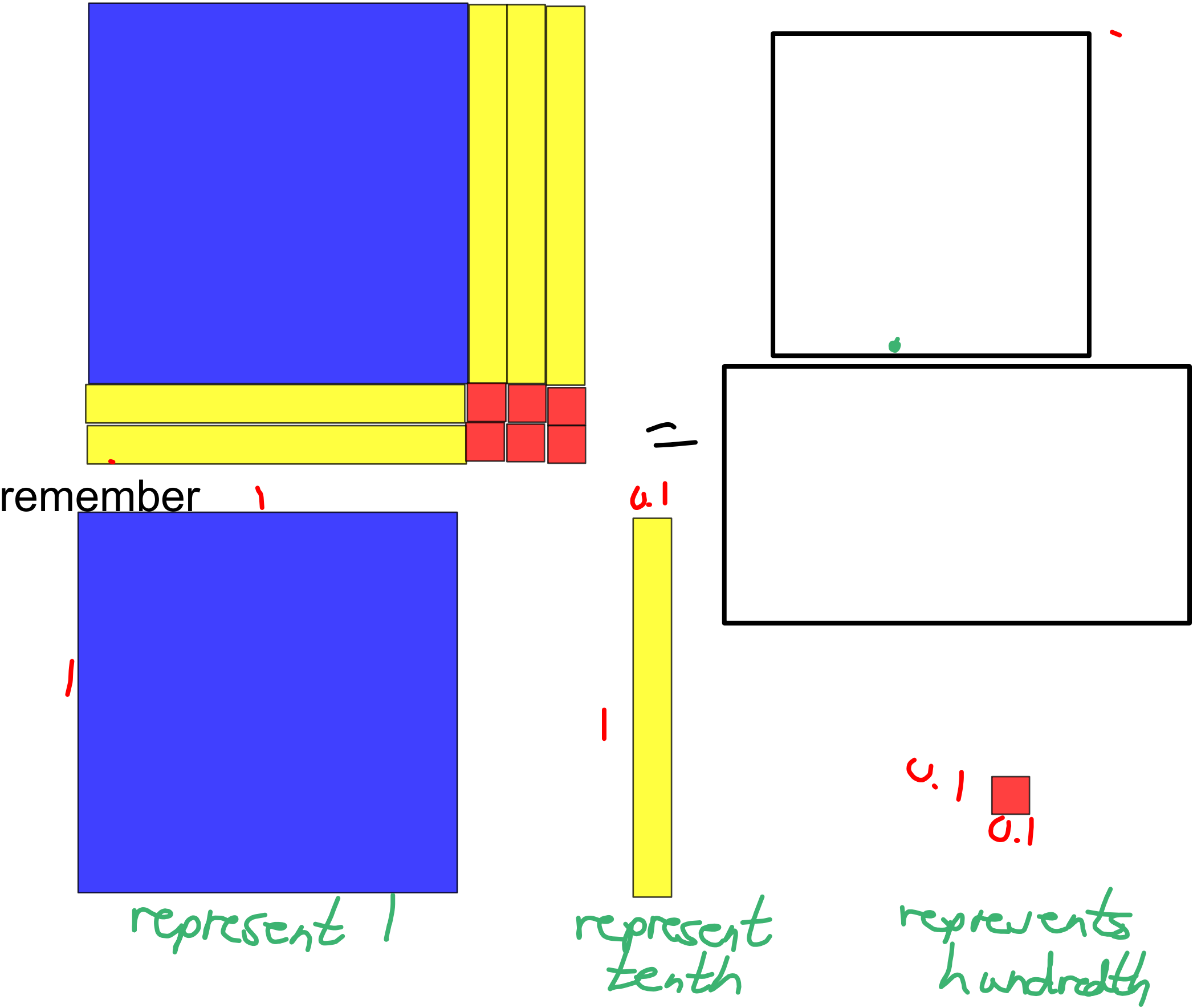
0.1

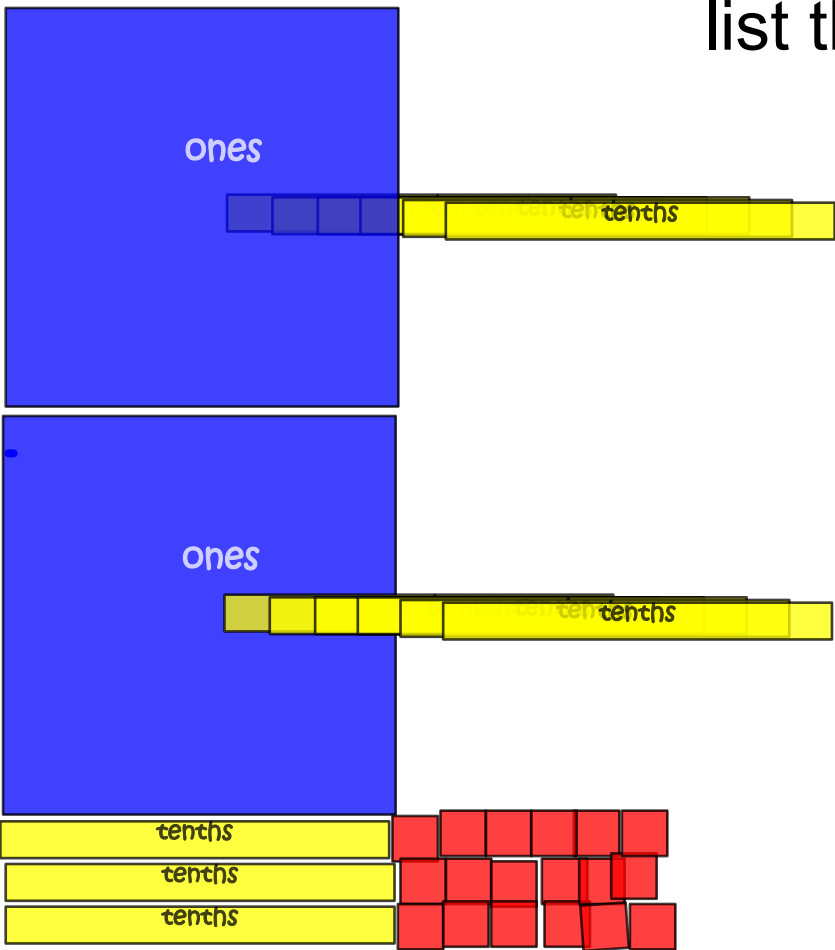


will represent
hundredths

0.01

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





list the ones, tenths & hundredths

__ones =

__tenths =

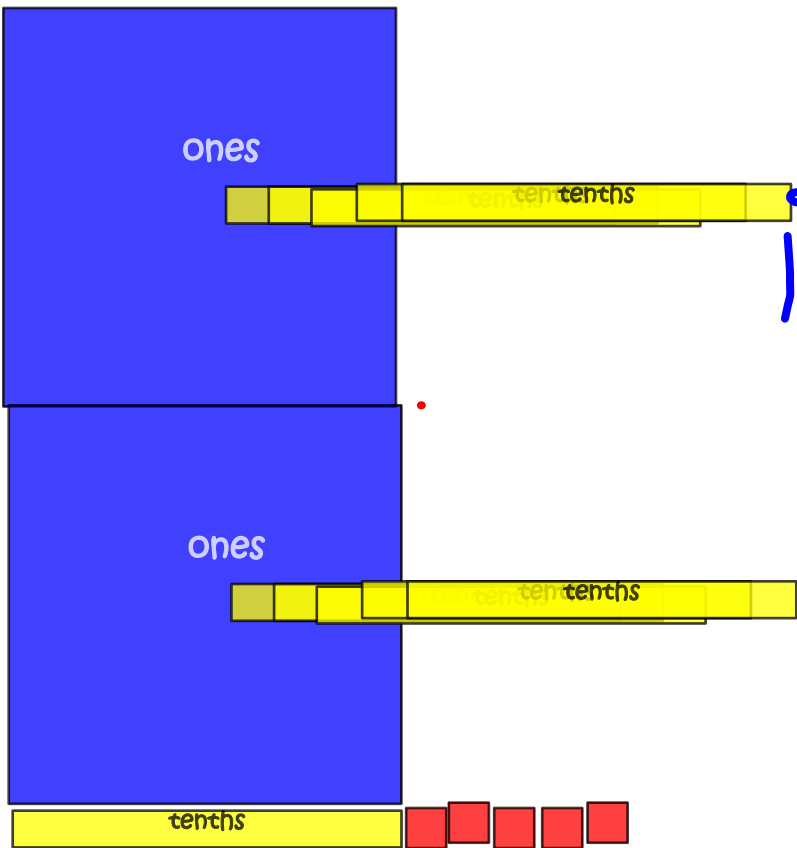
__hundredths =

sum _____

show
multiplication

1.5

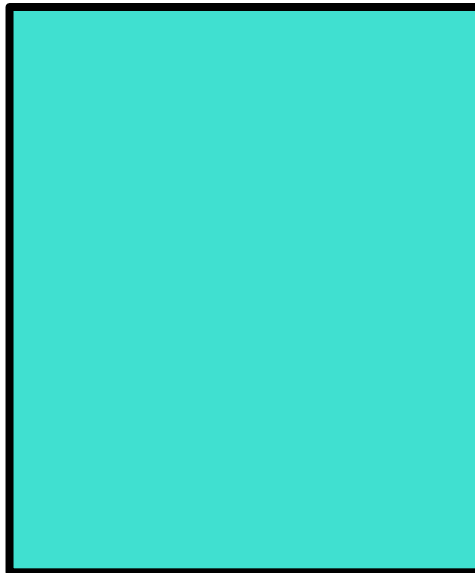
2.1



2 ones
11 tenths
5 hundredths

$$\begin{array}{r} 2 \\ 1.1 \\ 0.05 \\ \hline 3.15 \end{array}$$

$$\begin{array}{r} 2.1 \\ \times 1.5 \\ \hline 105 \\ 210 \\ \hline 3.15 \end{array}$$





__ ones =

__ tenths =

__ hundredths =

sum

DO IT OUT NORMALLY

3.2
x 3.4

128
960

10.88

Model the following multiplication

$$2.1 \times 1.4$$

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.

Try the following:

(a) 2.46×0.58

~~2~~ ⁴ ~~3~~
2.46
x 0.58

1968
12300

1.4268

(b) 3.9×1.68

~~3~~ ²
1.68
x 3.9

1512
5040

6.552

Homework pg. 102 # 1-5 (You have to model for #2)