

Warm Up Grade 7

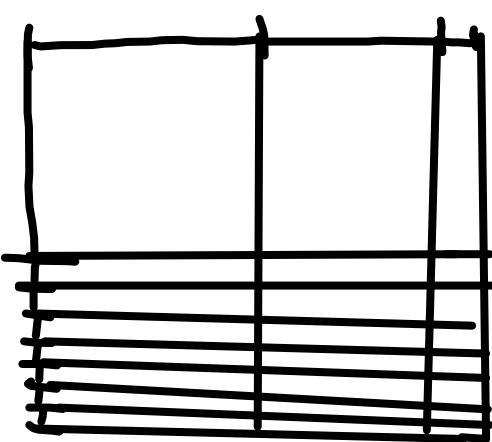


Multiply

$$\begin{array}{r}
 1) \quad \overset{24}{3.25} \\
 \times \quad 1.8 \\
 \hline
 \overset{2600}{2600} \\
 + \overset{3250}{3250} \otimes \\
 \hline
 \overset{5850}{5850}
 \end{array}$$

$$\begin{array}{r}
 2) \quad \overset{4}{16.2} \\
 \times \quad 3.7 \\
 \hline
 \overset{1134}{1134} \\
 + \overset{4860}{4860} \otimes \\
 \hline
 \overset{5994}{5994}
 \end{array}$$

3) model 2.1×1.7



$$\begin{array}{r}
 2 \text{ ones} \quad \quad 2.00 \\
 15 \text{ tenths} \quad \quad \underline{1.50} \\
 7 \text{ hundredths} \quad \quad \underline{0.07} \\
 \hline
 3.57
 \end{array}$$

4) $42.36 \div 4$

$$\begin{array}{r}
 10.59 \\
 4 \overline{) 42.36} \\
 \underline{-4} \\
 0 \\
 \underline{-0} \\
 0 \\
 \underline{-0} \\
 0 \\
 \underline{-0} \\
 0
 \end{array}$$

Warm Up Grade 7

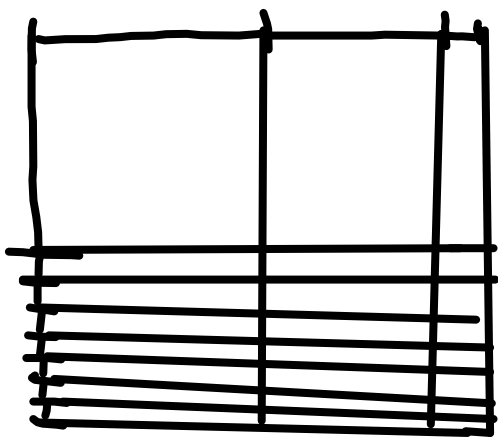


Multiply

$$\begin{array}{r}
 1) \quad \overset{24}{3.25} \\
 \times \quad 1.8 \\
 \hline
 2600 \\
 + 3250 \\
 \hline
 5850
 \end{array}$$

$$\begin{array}{r}
 2) \quad \overset{4}{16.2} \\
 \times \quad 3.7 \\
 \hline
 1134 \\
 + 4860 \\
 \hline
 5994
 \end{array}$$

3) model 2.1×1.7



$$\begin{array}{r}
 2 \text{ ones} \quad 2.00 \\
 15 \text{ tenths} \quad \underline{1.50} \\
 7 \text{ hundredths} \quad \underline{0.07} \\
 \hline
 3.57
 \end{array}$$

4) $42.36 \div 4$

$$\begin{array}{r}
 10.59 \\
 4 \overline{) 42.36} \\
 \underline{-4} \\
 0 \\
 \underline{-0} \\
 2 \\
 \underline{-2} \\
 0 \\
 \underline{-0} \\
 6 \\
 \underline{-6} \\
 0
 \end{array}$$

Practice

1. Divide.

- a) $6.25 \div 5$ b) $4.24 \div 4$ c) $1.68 \div 3$ d) $3.9 \div 6$

a) $5 \overline{) 6.25}$

b) $4 \overline{) 4.24}$

c) $3 \overline{) 1.68}$

d) $6 \overline{) 3.9}$

2. The decimal point is missing in each quotient.

Use estimation to place each decimal point.

- $\star 8.2 \div 2 = 4.1$ $8/2 = 4$ $\star 3.81 \div 3 = 1.27$ $3/3 = 1$
 c) $1.992 \div 8 = .249$ $2/8 = 0.25$ $\star 9.45 \div 5 = 1.89$ $10/5 = 2$
 e) $11.916 \div 9 = 1.324$ $9/9 = 1$ $\star 62.8 \div 8 = 7.85$ $64/8 = 8$

3. Estimate each quotient. Which strategies did you use?

- a) $26.34 \div 8$ b) $15.27 \div 3$ c) $2.304 \div 4$
 d) $5.8 \div 8$ e) $8.088 \div 6$ f) $2.316 \div 2$

a) $8 \overline{) 26.3400}$

b) $3 \overline{) 15.2700}$

c) $4 \overline{) 23.0400}$

d) $8 \overline{) 5.8000}$

e) $6 \overline{) 8.0880}$

f) $2 \overline{) 2.3160}$



4. Divide. Multiply to check your answers.

★ $27.025 \div 5$
d) $16.072 \div 8$

b) $3.42 \div 6$
★ $30.9 \div 5$

★ $7.735 \div 7$
f) $3.438 \div 6$

a) Example of how to do 4a)

Step 1: Estimate

$$25 \div 5 = 5$$

Step 3:

$$27.025 \div 5 = 5.405$$

Step 2: Actual

$$\begin{array}{r} 5.405 \\ 5 \overline{) 27.025} \\ \underline{-25} \\ 20 \\ \underline{-20} \\ 02 \\ \underline{-0} \\ 25 \\ \underline{-25} \\ 0 \end{array}$$

Step 4:

Check by Multiplying

$$5.405 \times 5 = 27.025$$

$$\begin{array}{r} 0.57 \\ 6 \overline{) 3.42} \\ \underline{30} \\ 42 \\ \underline{-42} \\ 0 \end{array}$$

$$3.42 \div 6 = 0.57$$

$$\begin{array}{r} 1.105 \\ 7 \overline{) 7.735} \\ \underline{-7} \\ 07 \\ \underline{-7} \\ 03 \\ \underline{-0} \\ 35 \\ \underline{-35} \\ 0 \end{array}$$

$$7.735 \div 7 = 1.105$$

$$\begin{array}{r} 2.009 \\ 8 \overline{) 16.072} \\ \underline{-16} \\ 00 \\ \underline{-0} \\ 07 \\ \underline{-0} \\ 72 \\ \underline{-72} \\ 0 \end{array}$$

$$16.072 \div 8 = 2.009$$

$$\begin{array}{r} 6.18 \\ 5 \overline{) 30.90} \\ \underline{-30} \\ 09 \\ \underline{-5} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

$$30.9 \div 5 = 6.18$$

$$\begin{array}{r} 0.573 \\ 6 \overline{) 3.438} \\ \underline{-30} \\ 43 \\ \underline{-42} \\ 18 \\ \underline{-18} \\ 0 \end{array}$$

$$3.438 \div 6 = 0.573$$



5. Estimate to choose the correct quotient for each division question.

Question	Possible Quotients		
a) $8.124 \div 6$ $6 \div 6 = 1$	1.354	13.54	135.4
b) $37.92 \div 3$ $30 \div 3 = 10$	0.1264	1.264	12.64
c) $7.624 \div 8$ $7 \div 8$ less than 1	0.953	9.53	95.3

6. Aqpiq Peter is a young Inuit speed skater from Nunavut. He is one of 3 First Nations athletes being showcased for the 2010 Vancouver Olympics. At practice, Aqpiq skated 2.75 km in 5 min. About how far did Aqpiq skate in 1 min?



$$\begin{array}{r} 0.55 \\ 5 \overline{) 2.75} \\ \underline{-25} \\ 25 \\ \underline{-25} \\ 0 \end{array}$$

Aqpiq skated 0.55 km in 1 min.



7. Eric cycled 2.25 km in 5 min.
 Josie cycled 2.72 km in 8 min.
 Who travelled farther in 1 min?
 Show your work.

Eric

$$\begin{array}{r} 0.45 \\ 5 \overline{) 2.25} \\ \underline{-20} \\ 25 \\ \underline{-25} \\ 0 \end{array}$$

Eric 0.45 km in 1min

Josie

$$\begin{array}{r} 0.34 \\ 8 \overline{) 2.72} \\ \underline{24} \\ 32 \\ \underline{-32} \\ 0 \end{array}$$

Josie travelled
0.34 km
in 1min

Eric travelled further



8. Sharma paid \$58.50 to board her cat at a kennel in Yellowknife for 5 days.
 Her friend Miles paid \$12.50 each day to board his cat at a different kennel for 5 days.
 Who paid the lesser amount?

Explain how you know.

Sharma paid \$11.70 each day
 which is less than \$12.50
 Sharma paid less.

Sharma

$$\begin{array}{r} 11.70 \\ 5 \overline{) 58.50} \\ \underline{-5} \\ 08 \\ \underline{-5} \\ 35 \\ \underline{-35} \\ 00 \end{array}$$



9. The decimal point in some of these quotients is in the wrong place. Identify the mistakes, then write each quotient with the decimal point in the correct place.

- a) $44.8 \div 8 = 0.56$ $40 \div 8 = 5$ b) $14.805 \div 5 = 2.961$ ✓
 c) $3.15 \div 6 = 5.25$ d) $8 \div 1 = 8$

a) 5.6

c) $3 \div 6$ is smaller than 1
0.525

b) $15 \div 5 = 3$
over

d) 8.127



10. A student divided 1.374 by 4 and got 3.435.
 a) Without dividing, how do you know the answer is incorrect?
 b) What do you think the student did wrong?
 c) What is the correct answer? How can you check?

- a) $1 \div 4$ is going to be smaller than 1
 b) Placed the decimal in the wrong spot
 c) $1.374 \div 4 = 0.3435$

$$\begin{array}{r} 0.3435 \\ 4 \overline{) 1.3740} \\ \underline{-12} \\ 17 \\ \underline{-16} \\ 14 \\ \underline{-12} \\ 20 \\ \underline{-20} \\ 0 \end{array}$$

11. Write a story problem that can be solved by dividing 14.28 by 3.
 Trade problems with a classmate and solve your classmate's problem.

Kim paid \$14.28 for 3 dozens of cookies.
 How much did she pay for 1 dozen?

12. A square park has a perimeter of 14.984 km.
 How long is each side of the square?

$P = 4 \times \text{side}$
 $\text{side} = P \div 4$

$14.984 \div 4$

Each side is 3.735 km long

$$\begin{array}{r} 3.735 \\ 4 \overline{) 14.940} \\ \underline{-12} \\ 29 \\ \underline{-28} \\ 14 \\ \underline{-12} \\ 20 \\ \underline{-20} \\ 0 \end{array}$$

13. In good weather, Hannah rides her bike to school and back each day.
 One week, Hannah rode her bike on 4 days.
 That week, Hannah rode 10.832 km in total.
 The following week, she rode her bike all 5 days.
 How far did Hannah ride the second week?



Find km per day

$$\begin{array}{r} 2.708 \\ 4 \overline{) 10.832} \\ \underline{-8} \\ 28 \\ \underline{-28} \\ 03 \\ \underline{-0} \\ 32 \\ \underline{-32} \\ 0 \end{array}$$

Hannah drives 2.708 km each day

For 5 days

$$\begin{array}{r} 2.708 \\ \times 5 \\ \hline 13.540 \end{array}$$

Hannah drives 13.54 km in 5 days

Part 2) If needed

1) $88.2 \div 7$

2) $12.65 \div 4$

3) $4.864 \div 8$

4) $14.596 \div 9$

5) $134.82 \div 6$

6) $7.043 \div 5$

7) $9.654 \div 3$

8) $18.62 \div 4$

9) $67.548 \div 6$

Dividing Decimals

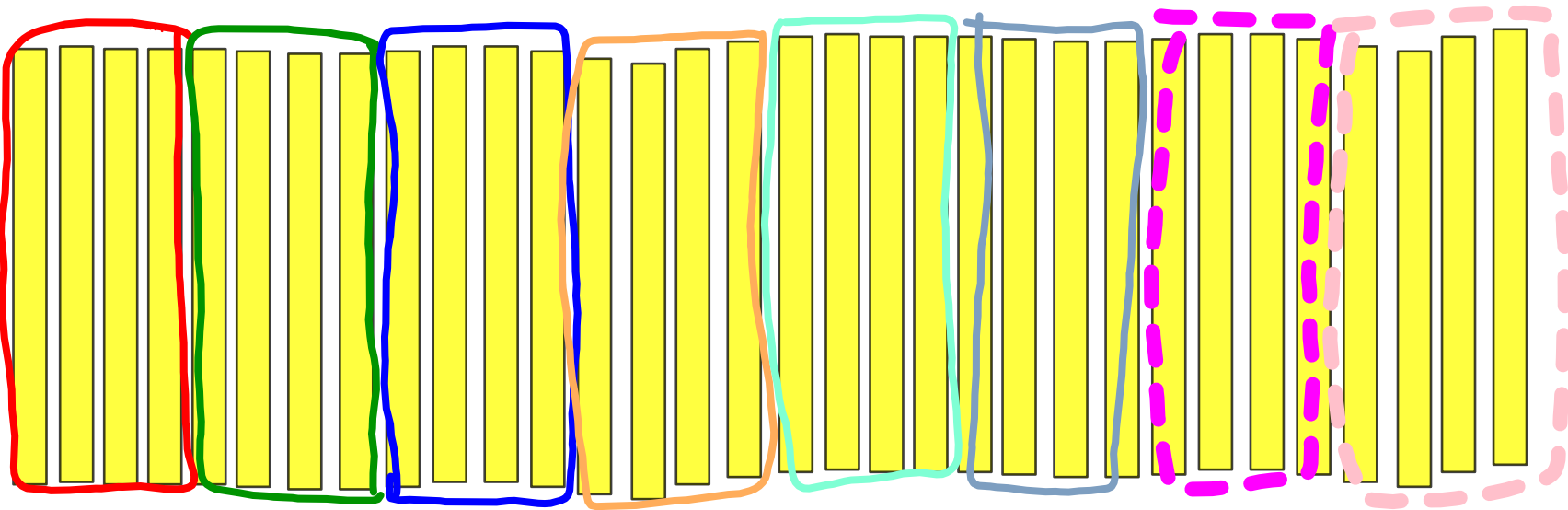
Since multiplication and division is related, we can also use Base Ten Blocks to divide.

$$3.2 \div 0.4$$

NOT whole

we say 32 tenths \div 4 tenths = 8

break into groups containing 4 tenths.
(How many groups?)



Dividing Decimals

 long division

$1.8 \times 0.4 = 0.72$

THEN

0.72	$\overline{) 1.8 = 0.4}$	0.72	$0.4 = 1.8$	$\overline{) \text{Dividend}}$	Quotient
dividend	divisor	quotient			

Examples

a) $0.72 \div 0.4$ long division but first make divisor a whole number

Divisor is not whole

$0.72 \div 0.4$

change to 7.2 tenths divide by 4 tenths

$0.4 \overline{) 0.72}$



$$\begin{array}{r} 1.8 \\ 4 \overline{) 7.2} \\ \underline{-4} \\ 3 \\ \underline{-3} \\ 0 \end{array}$$

b) $0.72 \div 0.8 = \boxed{0.9}$

$0.8 \overline{) 0.72}$



$$\begin{array}{r} 0.9 \\ 8 \overline{) 7.2} \\ \underline{-0} \\ 7 \\ \underline{-7} \\ 0 \end{array}$$

$$52.1 \div 0.9$$

estimate

$$\approx 52 \div 1$$

$$0.9 \overline{) 52.1}$$

$$\begin{array}{r} 57.8 \\ 9 \overline{) 521.0} \\ \underline{-45} \\ 71 \\ \underline{-80} \\ 72 \\ \underline{-72} \\ 80 \\ \underline{-72} \\ 80 \end{array}$$

Repeat s

Answer

$$52.1 \div 0.9 = 57.8$$

$$0.8 \sqrt{6.34}$$



$$8 \sqrt{63.400}$$

7.925

63.400

-56

74

-72

20

.16

400

-400

0

$$0. \overline{) 436.1}$$

→

$$\begin{array}{r} 623. \\ \overline{) 4361.} \\ \underline{-42} \\ 16 \\ \underline{-14} \\ 21 \\ \underline{-21} \\ 0 \end{array}$$

$$0.7 \overline{) 10.78} \rightarrow$$

$$67.95 \div 1.2 =$$

$$1.2 \overline{) 67.95}$$



$$\begin{array}{r} 56.645 \\ 12 \overline{) 679.500} \\ \underline{-60} \\ 79 \\ \underline{-72} \\ 75 \\ \underline{-72} \\ 30 \\ \underline{-24} \\ 60 \\ \underline{-60} \\ 0 \end{array}$$

Class/ Homework

pg. 106 # 4 , #5

a b c d
c b a a b c d

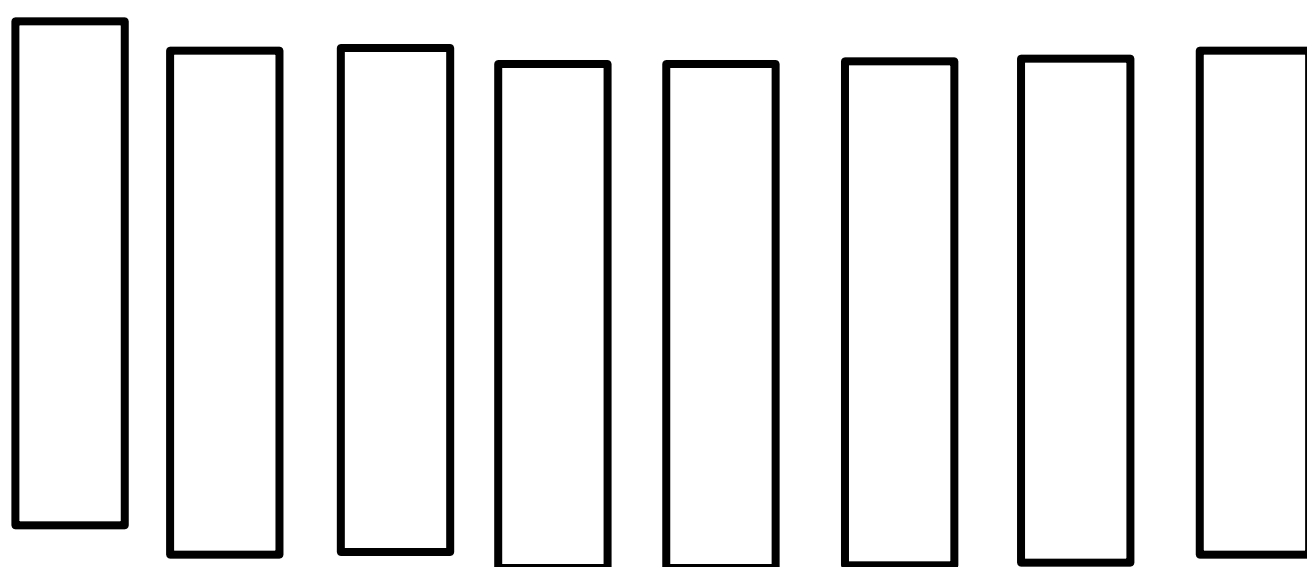
4 a) $5 \overline{) 59.5}$

b) $0.2 \overline{) 195.3}$

pg 106

$$1 \text{ a) } 0.8 \div 0.1$$

8 tenths \div one tenth



How many tenths?

8

