

Warm Up Grade 8



Test Oct 7

Sept 25

Evaluate

1) 12.06×1.7

$$\begin{array}{r} 12.06 \\ \times 1.7 \\ \hline 8442 \\ + 12060 \\ \hline 20502 \end{array}$$

2) 87×2.1

$$\begin{array}{r} 87 \\ \times 2.1 \\ \hline 870 \\ + 1740 \\ \hline 1827 \end{array}$$

3) $147.3 \div 4$

$$\begin{array}{r} 36.825 \\ 4 \overline{) 147.300} \\ \underline{-12} \\ 27 \\ \underline{-24} \\ 33 \\ \underline{-32} \\ 10 \\ \underline{-8} \\ 20 \\ \underline{-20} \\ 0 \end{array}$$

4) $12.7 - 3.4$

$$\begin{array}{r} 12.7 \\ - 3.4 \\ \hline 9.3 \end{array}$$

5) $(-7) \times (-8)$

$(+56)$

6) $(+11) \times (-3)$

(-33)

7) Box Method for $(-37) \times (+49) = (-1813)$

	30	7
40	$40 \times 30 = 1200$	$40 \times 7 = 280$
9	$9 \times 30 = 270$	$9 \times 7 = 63$

$$\begin{array}{r} 1200 \\ 280 \\ 270 \\ + 63 \\ \hline 1813 \end{array}$$



Multiply $\downarrow \downarrow \downarrow$

1)

$$3.25 \times 1.8$$

$$\begin{array}{r} 3.25 \\ \times 1.8 \\ \hline 2600 \\ + 3250 \\ \hline 5.850 \end{array}$$

2)

$$16.2 \times 3.7$$

$$\begin{array}{r} 16.2 \\ \times 3.7 \\ \hline 1134 \\ + 4860 \\ \hline 59.94 \end{array}$$

Divide $16.43 \div 7$

$$\begin{array}{r} 2.3471428 \\ 7 \overline{) 16.4300000} \\ \underline{-14} \downarrow \\ 24 \downarrow \\ \underline{-21} \downarrow \\ 33 \downarrow \\ \underline{-28} \downarrow \\ 50 \downarrow \\ \underline{-49} \downarrow \\ 10 \downarrow \\ \underline{-7} \downarrow \\ 30 \downarrow \\ \underline{-28} \downarrow \\ 20 \downarrow \\ \underline{-14} \downarrow \\ 60 \downarrow \\ \underline{-56} \\ 40 \end{array}$$

Finish the following



4. Divide. Multiply to check your answers.

- a) $27.025 \div 5$
- b) $3.42 \div 6$
- c) $7.735 \div 7$
- d) $16.072 \div 8$
- e) $30.9 \div 5$
- f) $3.438 \div 6$

4a)

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

b)

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

c)

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

d)

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

e)

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

f)

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



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

	Question	Possible Quotients		
a)	$8.124 \div 6$	1.354	13.54	135.4
b)	$37.92 \div 3$	0.1264	1.264	12.64
c)	$7.624 \div 8$	0.953	9.53	95.3

$$8 \div 6 = 1.$$

$$36 \div 3 = 12.$$

$$8 \div 8 = 1.$$

a) $6 \overline{) 8.12}$

b) $3 \overline{) 37.92}$

c) $8 \overline{) 7.624}$

6. Aqpik 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, Aqpik skated 2.75 km in 5 min. About how far did Aqpik skate in 1 min?

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

Aqpik 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

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

Josie

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

Eric travelled further in 1 min.

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.

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

Sharma paid \$11.70 each day
Miles paid \$12.50 each day.
So Sharma paid the lesser amount.

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.

~~X~~ a) $44.8 \div 8 = 0.56$ 5.6 b) $14.805 \div 5 = 2.961$ ✓
~~X~~ c) $3.15 \div 6 = 5.25$ 0.525 ~~X~~ d) $8.127 \div 1 = 0.8127$ 8.127

a) $40 \div 8 = 5$

b) $15 \div 5 = 3$

c) $3 \div 6$
 $\frac{3}{6} = \frac{1}{2} = 0.5$

d) $8 \div 1 = 8$



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?

$1 \div 4 = 0.25$
 Close to this
 Put decimal
 in wrong spot

c)

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

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?



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

She drove
 2.708 km
 in 1 day So

$$\begin{array}{r}
 ^3 ^4 \\
 2.708 \\
 \times ^5 \\
 \hline
 13.540
 \end{array}$$

Second
 week She
 would drive
 13.54 km.

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) $67.548 \div 6$

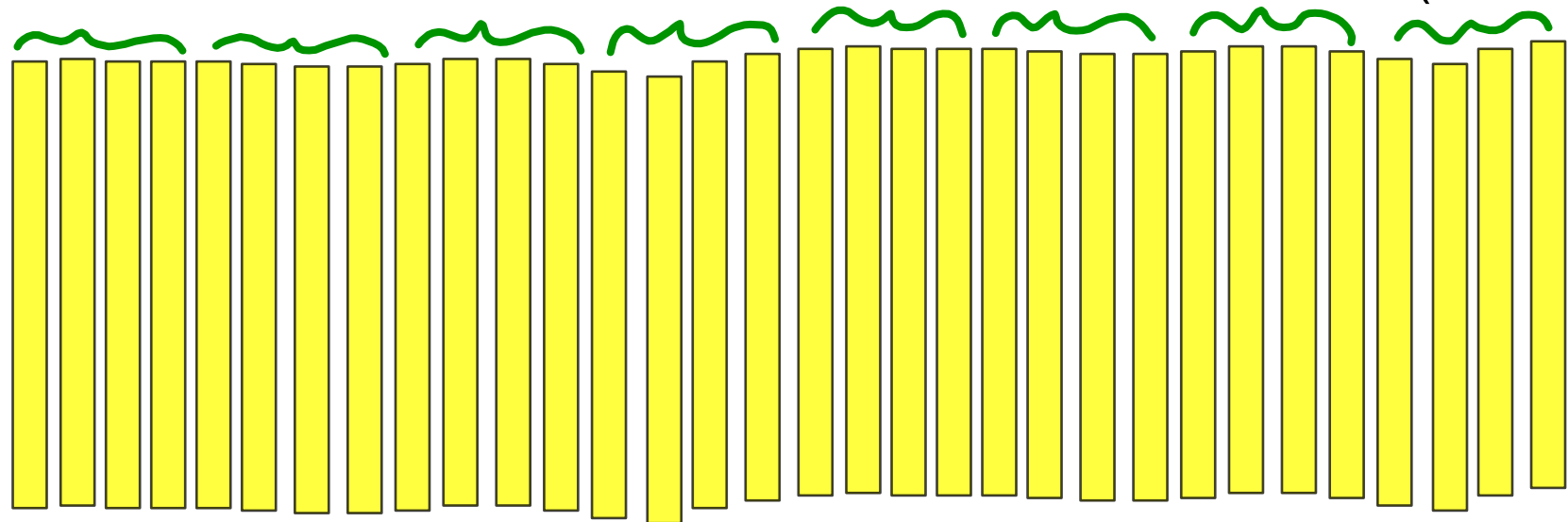
Dividing Decimals

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

$3.2 \div 0.4$

we say $32 \text{ tenths} \div 4 \text{ tenths} = 8$

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



Dividing Decimals

1.8 x 0.4 = 0.72 **THEN** 1.8 = 0.4

0.72 0.4 = 1.8

dividend divisor quotient

long division

Quotient
Divisor) Dividend

long division but first make divisor a whole number

a)

$0.4 \overline{) 0.72}$

Not a whole

move decimal in both divisor and dividend

$4 \overline{) 7.2}$

$\begin{array}{r} 1.8 \\ 4 \overline{) 7.2} \\ \underline{-4} \\ 3 \\ \underline{-3} 2 \\ 0 \end{array}$

b)

$0.8 \overline{) 0.72}$

not whole

$8 \overline{) 7.2}$

$\begin{array}{r} 0.9 \\ 8 \overline{) 7.2} \\ \underline{-0} \\ 7 \\ \underline{-7} 2 \\ 0 \end{array}$

52.1 ÷ 0.9

estimate

↓ close to 1

$\approx 52 \div 1 = 52$

0.9

)

52.1

→

9

57.8

√

521.0

- 45

71

- 63

80

72

8

wer

$$0.8 \overline{) 6.34}$$



$$\begin{array}{r}
 7.925 \\
 8 \overline{) 63.400} \\
 \underline{-56} \quad \downarrow \\
 74 \quad \downarrow \\
 \underline{-72} \quad \downarrow \\
 20 \quad \downarrow \\
 \underline{-16} \quad \downarrow \\
 40 \quad \downarrow \\
 \underline{-40} \\
 0
 \end{array}$$

$$\begin{array}{r}
 0.7 \overline{) 436.1} \\
 \hline
 \end{array}
 \rightarrow
 \begin{array}{r}
 623. \\
 7 \overline{) 4361.} \\
 \underline{-412} \\
 16 \\
 \underline{-14} \\
 21 \\
 \underline{-21} \\
 0
 \end{array}$$

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

67.95 ÷ 1.2 =



0

Classroom

Class/ Homework

- 1 a) $0.8 \div 0.1$ b) $1.2 \div 0.3$ c) $2.7 \div 0.6$ d) $2.2 \div 0.4$

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

Question	Possible Quotients		
a) $59.5 \div 5$	119	11.9	1.19
b) $195.3 \div 0.2$	9765	976.5	97.65
c) $31.32 \div 0.8$	3915	391.5	39.15

5. Use paper and pencil to divide.

- a) $1.5 \div 0.6$ b) $2.24 \div 0.7$ c) $1.28 \div 0.8$ d) $2.16 \div 0.9$