

DIVIDING MULTI-DIGIT NUMBERS

4th Grade

DIVIDING MULTI-DIGIT NUMBERS

NAME: _____

DIVIDING 1

Directions: Your football team is using an area model to solve the problem. Write the quotient on the corresponding number line.

- 1 $4,844 \div 7$
- 2 $2,610 \div 5$
- 3 $6,490 \div 8$
- 4 $1,552 \div 4$
- 5 $6,372 \div 9$

NAME: _____

DIVIDING MULTI-DIGIT NUMBERS

Estimating

Directions: The hot fudge on each sundaes is different, but the beakers have gotten all mixed up and he needs your help. Use multiples to solve the division problem on the top beakers. Find the beaker on the bottom with the corresponding quotient. Draw a line to match.

- 1 $3,462 \div 5$
- 2 $3,500 \div 5$
- 3 $700 \div 5$

DIVIDING MULTI-DIGIT NUMBERS

Directions: Help the scientist solve the problem by using the area model. Write the quotient on the corresponding number line.

- 1 $700 \div 5$
- 2 $270 \div 5$
- 3 $6,30 \div 5$

NAME: _____

DATE: _____

DIVIDING MULTI-DIGIT NUMBERS

Mad scientist quotients

Directions: Max the Mad Scientist is doing experiments in his lab. He wants to make mixtures of different liquids, but the beakers have gotten all mixed up and he needs your help. Use multiples to solve the division problem on the top beakers. Find the beaker on the bottom with the corresponding quotient. Draw a line to match.

- 1 $3,462 \div 5$
- 2 $3,500 \div 5$
- 3 $700 \div 5$

DIVIDING MULTI-DIGIT NUMBERS

Dividing with Area models

$$1,458 \div 6 = \underline{\hspace{2cm}}$$

DIVIDEND DIVISOR QUOTIENT

200 40 3

1,458	258	18
-1,200	-240	-18
258	18	0

6
divisor

Step 1

Think, "By what number can I multiply to divisor to get close to the dividend without going over?"

Step 2

Write 200 above the first box. Subtract the product of 6×200 from the dividend.

Step 3

Write the difference in the next box. Repeat steps 1 through 3 with the new number until the difference is 0.

Step 4

Add all the numbers you wrote on the tops of the boxes. The sum of the numbers is the quotient.

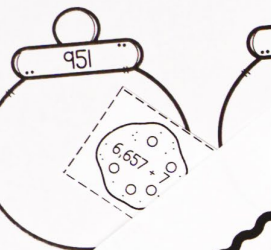
$$\begin{array}{r} 200 \\ + 40 \\ + 3 \\ \hline 243 \end{array}$$

Printable & Google Slides

DIVIDING MULT

Cookie jar

Directions: Use long division to solve the problems and paste into the cookie jar.



NAME: _____

DIVIDING MULT

Lily pads

Directions: Help the frogs in Dividing Multiples to solve each division problem by using the corresponding divisor.



NAME: _____

DIVIDING MULT

Estimating ice

Directions: The hot fudge on each beaker is melting. Rewrite the equation on the bottom with the corresponding quotient. Draw a line to match.

NAME: _____

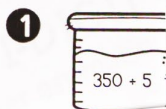
DIVIDING M

NAME: _____ DATE: _____

DIVIDING MULTI-DIGIT NUMBERS

Mad scientist quotients

Directions: Max the Mad Scientist is doing experiments in his lab. He wants to make mixtures of different liquids, but the beakers have gotten all mixed up and he needs your help. Use multiples to solve the division problem on the top beakers. Find the beaker on the bottom with the corresponding quotient. Draw a line to match.



DIVIDING MULTI-DIGIT NUMBERS

Dividing with Area models

$$\begin{array}{r} 1,458 \div 6 = \end{array}$$

DIVIDEND	DIVISOR	QUOTIENT
200	40	3
1,458	258	18
- 1,200	- 240	- 18
258	18	0

divisor

Step 1

Think, "By what number can I multiply to get close to the dividend without going over?"

6 x 200 = 1,200, which is close to 1,458 without going over.

Step 2

Write 200 above the first box. Subtract the product of 6 x 200 from the dividend.

Step 3

Write the difference in the next box. Repeat steps 1 through 3 with the new number until the difference is 0.

Step 4

Add all the numbers you wrote on the tops of the boxes. The sum of the numbers is the quotient.

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NAME: _____ DATE: _____

DIVIDING MULTI-DIGIT NUMBERS

Area model touchdown

Directions: Your football team just scored a touchdown! Score an extra point by using an area model to solve the division equation on each football. Find the corresponding quotient. Draw a line to match the football to the goal.

1 $4,844 \div 7$

2 $2,610 \div 6$

3 $6,496 \div 8$

4 $1,552 \div 4$

5 $6,372 \div 9$

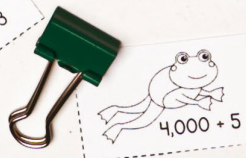
A

B

C

D

E



DIVIDING MULTI-DIGIT NUMBERS

Lily pad quotients

Directions: Help the frogs in Division Pond find their way to their lily pads. Use multiples to solve each division problem. Cut out the frogs and glue them onto the lily pads with the corresponding quotient.

$270 \div 3$

$4,000 \div 5$

$280 \div 4$

$6,300 \div 9$

$4,000 \div 8$

$360 \div 9$

800

70

500

40

DIVIDING MULTI-DIGIT NUMBERS

DIVIDING MULTI-DIGIT NUMBERS

Area model touchdown

Directions: Your football team just scored a touchdown! Solve the division equation on each card by using an area model to solve the division equation on each card. Draw a line to match the football team to the corresponding quotient.

DIVIDING MULTI-DIGIT NUMBERS

partial quotients

$$3,934 \div 7 = \underline{\hspace{2cm}}$$

- Step 1** Think, "By what number can I multiply the divisor to get close to the dividend without going over?" Start by thinking in multiples of 10 & 100.
- Step 2** Subtract the product from step 1 from the dividend.
- Step 3** Repeat until the difference is 0.
- Step 4** Find the sum of all the partial quotients. This is your final quotient.

$$\begin{array}{r} 7 \overline{) 3,934} \\ \underline{- 3,500} \quad 7 \times 500 \\ 434 \\ \underline{- 420} \quad 7 \times 60 \\ 14 \\ \underline{- 14} \quad 7 \times 2 \\ 0 \end{array}$$

$500 + 60 + 2 = 562$

DIVIDING MULTI-DIGIT NUMBERS

Cookie jar Long division

Directions: Use long division to solve the division problem on each cookie. Cut out the cookies and paste into the cookie jar with the correct quotient.

951

5706 $\div$ 6

6657 $\div$ 9

125

425 $\div$ 5

125 $\div$ 5

364

2912 $\div$ 8

455 $\div$ 5

$350 \div 5$

$2,100 \div 7$

$8,100 \div 9$

$240 \div 4$

900

600

90

90

$$4,000 \div 5$$

$$360 \div 9$$

$$4,000 \div 8$$

$$6,300 \div 9$$

$$270 \div 3$$

DIVIDING MULTI-DIGIT NUMBERS

mad scientist quotients

Directions: Max the Mad Scientist is doing experiments in his lab. He wants to make mixtures of different liquids, but the beakers have gotten all mixed up and he needs your help. Use multiples to solve the division problem on the top beakers. Drag the beaker with the corresponding quotient to the beaker with the division problem.

1			2				
3			4				
5			6				

NAME: _____

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Estim

Directions: The hot fud cream, rewrite the ec math. Write the quot

1 $3,462 \div 5$
 $3,500$

NAME: _____

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Cookie jar Long
Directions: Use long division to solve the division pr
cookies and paste into the quot

NAME: _____

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Dividing with

$$1,458 \div 6$$

DATE: _____

DIVIDING MULTI-DIGIT NUMBER

Zookeeper estimat

The zookeepers at Division Zoo need to estimat
e zookeepers know the total weight of all the a
imals are in each exhibit. Use the information to e



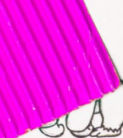
Animal: Pacific Walrus
in Exhibit: 4
Total Weight: 8,291 lbs.
Est. Weight per Animal: 2



Animal: Red Kangaroo
in Exhibit: 6
Total Weight: 635 lbs.
Est. Weight per Anim



Animal: Galapagos T
in Exhibit: 7
Total Weight: 2,66
Est. Weight per A



Animal: Eastern
in Exhibit: 8
Total Weight:
Est. Weight p

NAME: _____

DIVIDING

Directions: Your footba
by using an area model
the corresponding quoti

1 $4,844 \div 7$

2 $2,610 \div 6$

3 $6,496 \div 8$

4 $1,552 \div 4$

$$5,706 \div 6$$

$$625$$

$$2,912 \div 8$$

$$1,521$$

$$1,456 \div 4$$

$$6,657 \div 9$$

NAME: _____
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 Estim

Directions: The hot fu
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1

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2

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 riple to 1...
 y pads with the corresp

NAME: _____ DATE: _____

DIVIDING MULTI-DIGIT NUMBERS

Cookie jar Long division

Directions: Use long division to solve the division problem on each cookie. Cut out the cookies and paste into the cookie jar with the correct quotient.

951

125

DIVIDING MULTI-DIGIT NUMBERS

Dividing with Area models

$1,458 \div 6 =$

DIVIDEND	DIVISOR	QUOTIENT
200	40	3
1,458	258	1
- 1,200	- 240	- 1
258	18	

6
divisor

Step 1 Think, "By what number can I multiply to divisor to get close to the dividend without going over?"

Step 2 Write 200 above the first box. Subtract the product from the dividend.

Step 3 Find the difference in the next box. Repeat step 2 until the difference is 0.

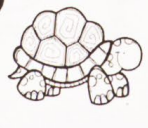
Step 4 Add the numbers you wrote on the tops of the boxes. The sum of the numbers is the quotient.

NAME: _____ DATE: _____

DIVIDING MULTI-DIGIT NUMBERS

Zookeeper

Directions: The zookeepers at Division 1 are counting the animals. The zookeepers know the total many animals are in each exhibit. Use the area model to solve the division equation on each exhibit.

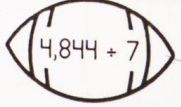
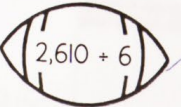
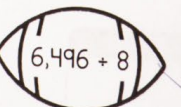
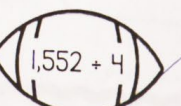
- 1  Animal: Pacific Walrus
in Exhibit: 1
Total Weight: 1,458
Est. Weight per animal: _____
- 2  Animal: Red Kitten
in Exhibit: 6
Total Weight: 1,458
Est. Weight per animal: _____
- 3  Animal: Galapagos Tortoise
in Exhibit: 7
Total Weight: 1,458
Est. Weight per animal: _____
- 4  Animal: Eastern Gorilla
in Exhibit: 8
Total Weight: 1,458
Est. Weight per animal: _____

NAME: _____

DIVIDING MULTI-DIGIT NUMBERS

Area model touchdown

Directions: Your football team just scored a touchdown! Score an extra point by using an area model to solve the division equation on each football. Draw a line to match the football to the correct quotient.

- 1  A
- 2  B
- 3  C
- 4  D



NAME: _____

DIVIDING

Estim

Directions: The hot fu
cream, rewrite the
math. Write the c

1

3,46



Directions: Use long division to solve the division problem on each cookie. Cut out the cookies and paste into the cookie jar with the correct quotient.

DIVIDING MULTI-DIGIT NUMBERS

Cookie jar Long division

DATE: _____

2×9

$= 32$

$= 21$

$= 25$

MULTI-D

had scientist
Scientist is doing exp
quids, but the beakers
solve the division probl
corresponding quotien

2



6
divisor

Step 1

Think, "By wh
to divisor to g
without going

Step 2

Write 200 abo
from the divid

Step 3

the differ
y number

Step 4

add the numbers you wrote on the tops of the
boxes. The sum of the numbers is the quotient.

© 2015 Baker

Directions: Help
multiples to solve each
lily pads with the correct



DIVIDING MULTI-DIGIT NUMBERS

zookeeper estimation

Directions: The zookeepers at Division Zoo need to estimate the weight of each of their animals. The zookeepers know the total weight of all the animals in each exhibit and how many animals are in each exhibit. Use the information to estimate the weight of each animal.

5



Animal: Andean Condor
in Exhibit: 9
Total Weight: 288 lbs.
Est. Weight per Animal: _____

SHOW YOUR WORK

6



Animal: Plains Zebra
in Exhibit: 6
Total Weight: 4,903 lbs.
Est. Weight per Animal: _____

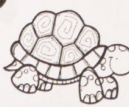
SHOW YOUR WORK

20

+ 4

+ 2

3



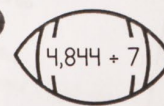
Animal:
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4

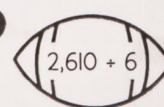


Animal: East
in Exhibit: i
Total Weight:
Est. Weight pe

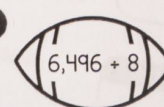
1



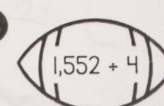
2



3



4



DIVIDING MULTI-DIGIT NUMBERS

4th grade

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DIVIDING MULTI-DIGIT NUMBERS

dividing multiples of 10 & 100

$$\begin{array}{ccc} 540 & \div & 9 = \underline{\quad\quad\quad} \\ \text{DIVIDEND} & & \text{DIVISOR} \quad \text{QUOTIENT} \end{array}$$

Step 1

Identify a multiple of the divisor within the dividend.

$$\textcircled{540} \div 9$$

Step 2

Cover up the zeroes that come after the multiple.

$$54 \blacksquare \div 9$$

Step 3

Find the quotient.

$$54 \div 9 = 6$$

Step 4

Place the number of zeroes you covered up at the end of the quotient.

$$540 \div 9 = 60$$

DIVIDING MULTI-DIGIT NUMBERS

estimating quotients

$$\begin{array}{ccc} 3,340 & \div 8 = & \\ \text{DIVIDEND} & \text{DIVISOR} & \text{QUOTIENT} \end{array}$$

Step 1

Create a compatible number within the dividend.

$$3,200 \div 8$$

★ A **compatible number** is a number within the dividend that you know is easily divisible by the divisor

3,340 is close to 3,200. I know 32 is a multiple of 8.

Step 2

Use your strategies for dividing by multiples of 10 and 100 to find the quotient.

$$3,200 \div 8$$

$$32 \div 8 = 4$$

$$3,200 \div 8 = 400$$

DIVIDING MULTI-DIGIT NUMBERS

dividing with area models

$$1,458 \div 6 =$$

DIVIDEND

DIVISOR

QUOTIENT

200

40

3

6
divisor

$\begin{array}{r} 1,458 \\ - 1,200 \\ \hline 258 \end{array}$	$\begin{array}{r} 258 \\ - 240 \\ \hline 18 \end{array}$	$\begin{array}{r} 18 \\ - 18 \\ \hline 0 \end{array}$
---	--	---

Step 1

Think, "By what number can I multiply to divisor to get close to the dividend without going over?"

6 x 200 = 1,200, which is close to 1,458 without going over

Step 2

Write 200 above the first box. Subtract the product of 6 x 200 from the dividend.

Step 3

Write the difference in the next box. Repeat steps 1 through 3 with the new number until the difference is 0.

Step 4

Add all the numbers you wrote on the tops of the boxes. The sum of the numbers is the quotient.

$$\begin{array}{r} 200 \\ + 40 \\ + 3 \\ \hline 243 \end{array}$$

NAME: _____

DATE: _____

DIVIDING MULTI-DIGIT NUMBERS

dividing multiples of 10

Directions: Use multiples to find the quotients.

1 $270 \div 9 =$ _____

2 $360 \div 6 =$ _____

3 $450 \div 5 =$ _____

4 $160 \div 2 =$ _____

5 $420 \div 7 =$ _____

6 $810 \div 9 =$ _____

7 $720 \div 8 =$ _____

8 $350 \div 7 =$ _____

9 $210 \div 3 =$ _____

10 $160 \div 4 =$ _____

11 $120 \div 3 =$ _____

12 $240 \div 6 =$ _____

13 $500 \div 5 =$ _____

14 $640 \div 8 =$ _____

15 $280 \div 4 =$ _____

16 $480 \div 6 =$ _____

NAME: _____

DATE: _____

DIVIDING MULTI-DIGIT NUMBERS

dividing multiples of 100

Directions: Use multiples to find the quotients.

1 $3,200 \div 4 =$ _____

2 $2,400 \div 6 =$ _____

3 $2,000 \div 5 =$ _____

4 $3,500 \div 7 =$ _____

5 $3,600 \div 9 =$ _____

6 $1,200 \div 2 =$ _____

7 $1,500 \div 3 =$ _____

8 $2,000 \div 5 =$ _____

9 $2,700 \div 3 =$ _____

10 $5,600 \div 8 =$ _____

11 $5,400 \div 9 =$ _____

12 $1,400 \div 7 =$ _____

13 $1,600 \div 4 =$ _____

14 $2,800 \div 4 =$ _____

15 $6,000 \div 6 =$ _____

16 $4,000 \div 5 =$ _____

NAME: _____

DATE: _____

DIVIDING MULTI-DIGIT NUMBERS

dividing multiples of 10 & 100

Directions: Use multiples to find the quotients.

1 $4,200 \div 7 =$ _____

2 $1,000 \div 5 =$ _____

3 $3,200 \div 8 =$ _____

4 $250 \div 5 =$ _____

5 $140 \div 2 =$ _____

6 $1,500 \div 3 =$ _____

7 $270 \div 9 =$ _____

8 $630 \div 9 =$ _____

9 $4,800 \div 6 =$ _____

10 $8,100 \div 9 =$ _____

11 $180 \div 2 =$ _____

12 $1,600 \div 4 =$ _____

13 $240 \div 8 =$ _____

14 $2,100 \div 7 =$ _____

15 $400 \div 9 =$ _____

16 $5,400 \div 6 =$ _____

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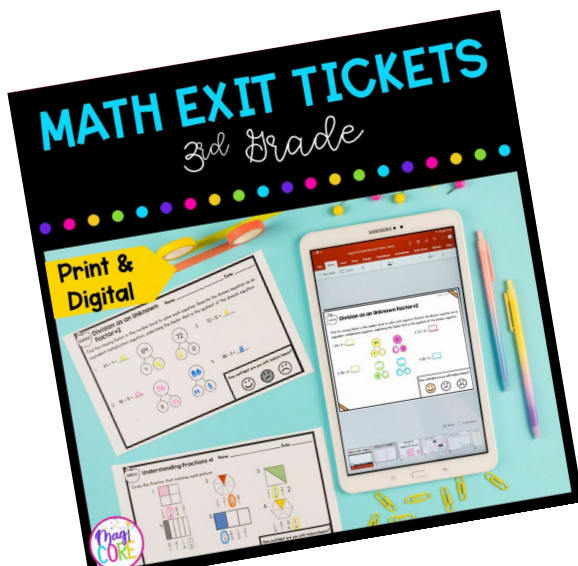


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