

Chunking Division Method



Watch this first:

$$330 \div 3 = 110$$

100	x	3	=	300	-
+10	x	3	=	030	-
<hr/>				<hr/>	
110				000	

Division Using the Chunking Method by 1-Digit Number

$$156 \div 9 = 17 \text{ r } 3$$

Write in the division format:

$$\begin{array}{r} \overline{9)156} \end{array}$$

Use known multiplication facts:

$$\begin{array}{r} \underline{-90} \end{array}$$

$$= 10 \times 9$$

subtract

66

Use known facts:

$$\begin{array}{r} \underline{-45} \end{array}$$

$$= 5 \times 9$$

subtract

21

Use known facts:

$$\begin{array}{r} \underline{-18} \end{array}$$

$$= 2 \times 9$$

subtract

3

Add number of times the divisor has been used:

$$= 17 \times 9$$

Now it's your turn:

1. Use the chunking method
2. Remember to show your working out
3. Don't forget to add together the number of times you use the divisor at the end for your answer!

Mild

$$69 \div 3$$

$$100 \div 4$$

$$140 \div 5$$

$$87 \div 3$$

$$112 \div 4$$

$$110 \div 5$$

$$96 \div 4$$

$$81 \div 3$$

Spicy

$$150 \div 6$$

$$145 \div 5$$

$$192 \div 6$$

$$132 \div 4$$

$$224 \div 8$$

$$204 \div 6$$

$$272 \div 8$$

$$140 \div 4$$

Hot

$$231 \div 7$$

$$288 \div 9$$

$$280 \div 8$$

$$252 \div 7$$

$$324 \div 9$$

$$304 \div 8$$

$$333 \div 9$$

$$273 \div 7$$

Did you notice the example we gave you had a remainder. That's because 156 does not divide equally by 9. There is a remainder of 3 (or 3 left over). Try these questions. They have remainders too.

Mild

$$71 \div 3$$

$$132 \div 5$$

$$97 \div 4$$

$$85 \div 3$$

$$102 \div 4$$

$$143 \div 5$$

$$117 \div 4$$

$$89 \div 3$$

Spicy

$$170 \div 6$$

$$163 \div 5$$

$$172 \div 6$$

$$138 \div 4$$

$$121 \div 8$$

$$200 \div 6$$

$$275 \div 8$$

$$119 \div 4$$

Hot

$$235 \div 7$$

$$293 \div 9$$

$$284 \div 8$$

$$208 \div 7$$

$$330 \div 9$$

$$258 \div 8$$

$$293 \div 9$$

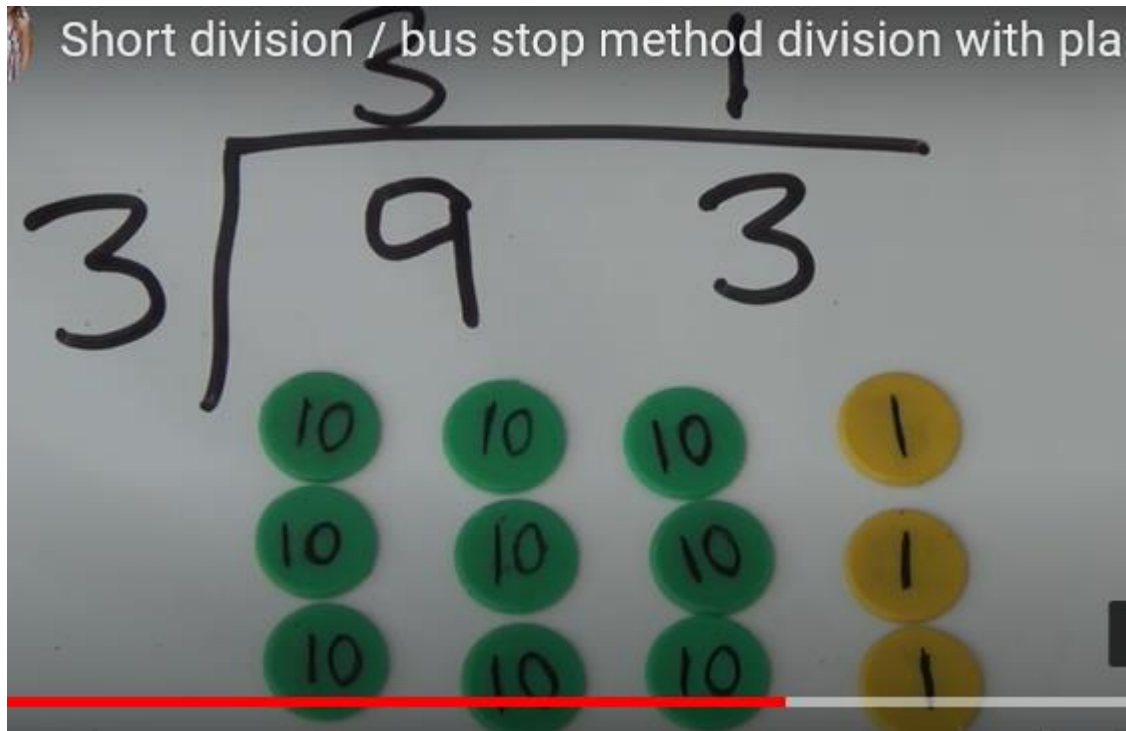
$$256 \div 7$$

After you've watched the video about bus stop division, use this method to work out these questions. You could use little pieces of paper to make your own place value counters.

**SHORT DIVISION /
BUS STOP
METHOD DIVISION
WITH PLACE
VALUE COUNTERS**

3 1
3 9 3
3 1 3 1

The image shows a young girl with long brown hair, smiling, holding a whiteboard. On the whiteboard, there is a handwritten division problem: $3 \overline{) 393}$. The quotient 131 is written above the line. Below the numbers, there are three columns of place value counters. The first column (hundreds) has three green counters. The second column (tens) has nine green counters. The third column (ones) has three yellow counters. To the left of the whiteboard, there is a cyan background with the text: "SHORT DIVISION / BUS STOP METHOD DIVISION WITH PLACE VALUE COUNTERS".



1. So this time we need to organise the place value counters into groups of the number we are dividing (the divisor). In this case, it's 3.
2. Our 93 counters are grouped into: **3** groups of 10 ($30 + 30 + 30$) and **1** group of 3 ($1 + 1 + 1$)
3. So our answer is $30 + 1 = 31$

Use your place value counters to work out these questions:

c) Complete the division.

$$49 \div 4 = \boxed{}$$

d) Use place value counters to complete the divisions.

$$50 \div 4 = \boxed{}$$

$$51 \div 4 = \boxed{}$$

What do you notice?

2

Complete the divisions.

a) $47 \div 3 = \boxed{}$

e) $49 \div 6 = \boxed{}$

b) $26 \div 5 = \boxed{}$

f) $47 \div 4 = \boxed{}$

c) $89 \div 4 = \boxed{}$

g) $74 \div 3 = \boxed{}$

d) $32 \div 5 = \boxed{}$

h) $81 \div 7 = \boxed{}$

Dora has been working out some divisions.

$$\begin{aligned} 72 \div 4 &= 18 \\ 73 \div 4 &= 18 \text{ r}1 \\ 74 \div 4 &= 18 \text{ r}2 \\ 75 \div 4 &= 18 \text{ r}3 \end{aligned}$$



I know without working it out that $76 \div 4$ must be 18 r4

a) Why does Dora think this?

b) Explain why Dora is wrong.

5 Eggs come in boxes of 6

Annie has 75 eggs.

She wants to know how many boxes she can fill.



a) Complete the division to work it out.

$$\square \div \square = \square \text{ r} \square$$




b) What does the remainder represent?

Talk about it with a partner.

c) Complete the sentence.

Annie can fill boxes with eggs left over.

6 Jack has these bulbs.

	Daffodils 49
	Tulips 63
	Crocuses 98

Equal numbers of each bulb are put into 4 tubs.

How many of each bulb will be in each tub?

Daffodils Tulips Crocuses

How many of each bulb will be left over?

Daffodils Tulips Crocuses

How many tubs could Jack use so that there are no bulbs left over?