

# Divide 2-digits by 1-digit (1)

- 1 Rosie is working out  $93 \div 3$  using a place value chart.

| Tens     | Ones |
|----------|------|
| 10 10 10 | 1    |
| 10 10 10 | 1    |
| 10 10 10 | 1    |

a) Talk about Rosie's method with a partner.

b) Complete the division.

$$93 \div 3 = \boxed{31}$$

- 2 Use place value counters to complete the divisions.

a)  $66 \div 3 = \boxed{22}$

d)  $48 \div 4 = \boxed{12}$

b)  $86 \div 2 = \boxed{43}$

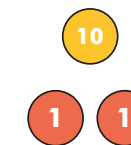
e)  $\boxed{13} = 39 \div 3$

c)  $50 \div 5 = \boxed{10}$

f)  $84 \div 4 = \boxed{21}$

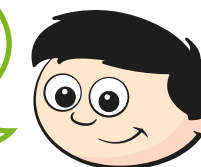
- 3 Dexter is working out  $56 \div 4$  using a place value chart.

| T  | O |
|----|---|
| 10 | 1 |
| 10 | 1 |
| 10 | 1 |
| 10 | 1 |



a)

I can't do it because I have counters left over.



Do you agree with Dexter? No

Explain your answer.

He can exchange 1 ten for 10 ones.

b) Work out  $56 \div 4$  using place value counters.

$$56 \div 4 = \boxed{14}$$

- 4 Use place value counters to complete the divisions.

a)  $72 \div 3 = \boxed{24}$

d)  $48 \div 6 = \boxed{8}$

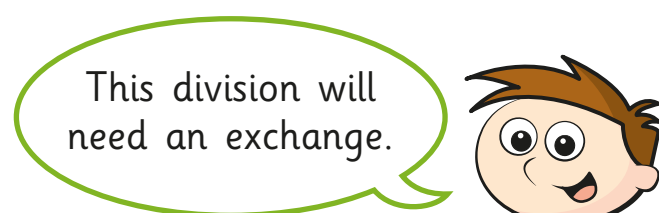
b)  $92 \div 4 = \boxed{23}$

e)  $\boxed{15} = 45 \div 3$

c)  $65 \div 5 = \boxed{13}$

f)  $64 \div 4 = \boxed{16}$

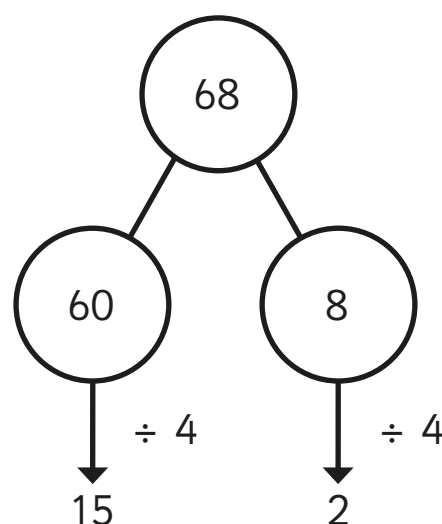
- 5 Teddy is working out  $57 \div 3$



How does Teddy know this? Talk about it with a partner.



- 6 Amir is working out  $68 \div 4$



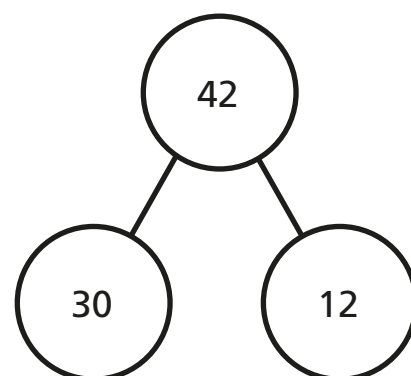
$$68 \div 4 = 17$$

Talk about Amir's method with a partner.

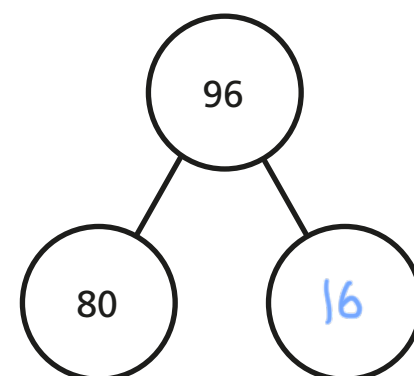


- 7 Use Amir's method to complete these calculations.

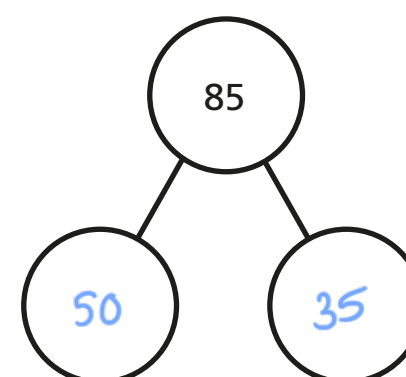
a)  $42 \div 3 =$  14



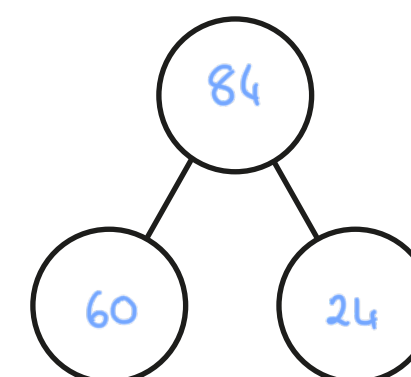
b)  $96 \div 4 =$  24



c)  $85 \div 5 =$  17



d)  $84 \div 6 =$  14



- 8 Kim has 92 beads.  
She wants to share them equally between 4 friends.  
How many beads will each friend get?

23

- 9 Write  $<$ ,  $>$  or  $=$  to make the statements correct.

$96 \div 8$  =  $72 \div 6$

$95 \div 5$  <  $63 \div 3$

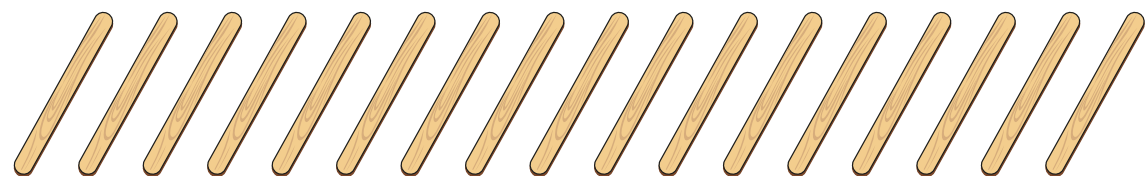
$51 \div 3$  >  $64 \div 4$

$98 \div 7$  <  $95 \div 5$

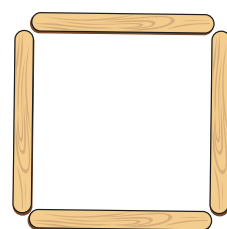


# Divide 2-digits by 1-digit (3)

- 1 Mo has these lolly sticks.



He uses them to make squares.  
How many squares can Mo make?



Complete the sentences.

There are 17 lolly sticks.

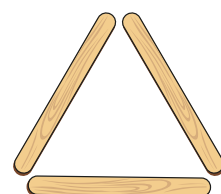
There are  groups of 4

There is  lolly stick remaining.

$17 \div 4 =$   remainder

Mo can make  squares.

- 2 Mo now uses the lolly sticks to make triangles.  
How many triangles can Mo make?



Complete the sentences.



There are 17 lolly sticks.

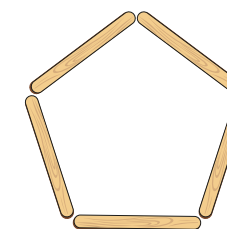
There are  groups of 3

There are  lolly sticks remaining.

$17 \div 3 =$   remainder

Mo can make  triangles.

- 3 Finally, Mo uses the lolly sticks to make pentagons.  
How many pentagons can Mo make?



Complete the sentences.

There are 17 lolly sticks.

There are  groups of 5

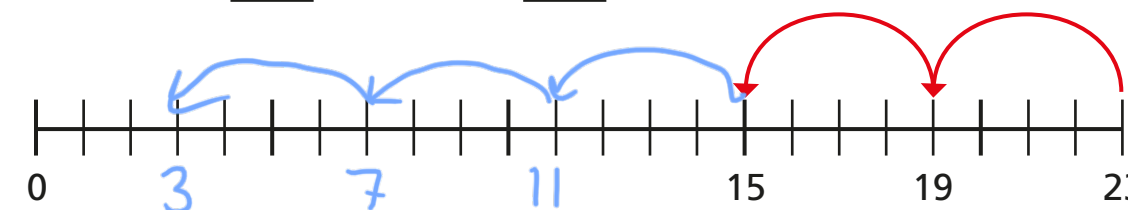
There are  lolly sticks remaining.

$17 \div 5 =$   remainder

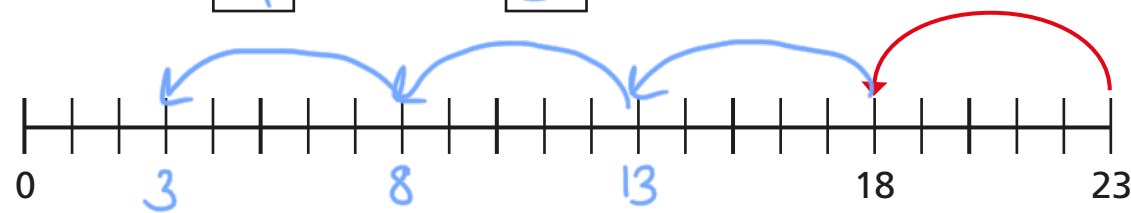
Mo can make  pentagons.

- 4 Use repeated subtraction to complete the divisions.  
Use the number lines to help you.

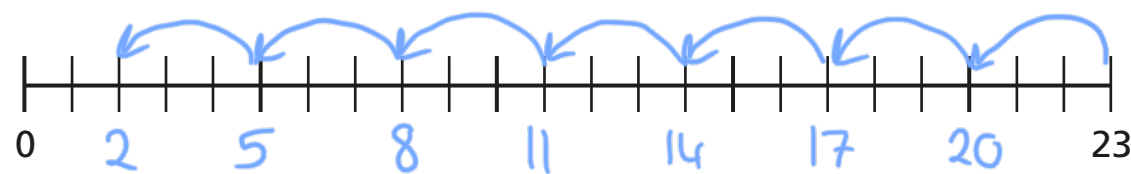
a)  $23 \div 4 =$   remainder



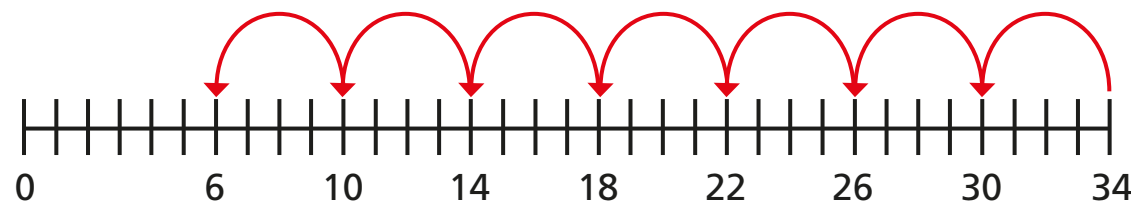
b)  $23 \div 5 = \boxed{4}$  remainder  $\boxed{3}$



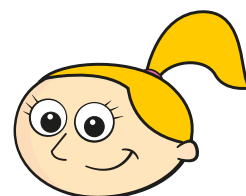
c)  $23 \div 3 = \boxed{7}$  remainder  $\boxed{2}$



- 5 Eva works out  $34 \div 4$



There is a remainder of 6



Is Eva correct? NO

How do you know?

- 6 Complete the calculations.

a)  $29 \div \boxed{6} = 4$  remainder 5

c)  $29 \div \boxed{2} = 14$  remainder 1

b)  $29 \div \boxed{7} = 4$  remainder 1

- 7 How do you know there is no remainder when 75 is divided by 5?

75 has 5 ones so it is in the 5 times table.

Without doing the division, what is the remainder when 76 is divided by 5?

1

- 8 Use place value counters and a place value chart to work out the divisions.

a)  $87 \div 4 = \boxed{21}$  remainder  $\boxed{3}$

b)  $77 \div 3 = \boxed{25}$  remainder  $\boxed{2}$

c)  $74 \div 5 = \boxed{14}$  remainder  $\boxed{4}$

- 9 Teddy has fewer than 60 marbles but more than 40. When he shares them equally into 3 pots he has no remainders. When he shares them equally into 4 pots he has remainder 3. When he shares them equally into 5 pots he has remainder 1. How many marbles could Teddy have?

51



# Divide 2-digits by 1-digit (2)

- 1 Whitney is working out  $49 \div 4$  using a place value chart.

| Tens | Ones |
|------|------|
| 10   | 1 1  |
| 10   | 1 1  |
| 10   | 1 1  |
| 10   | 1 1  |

1

- a) Talk about Whitney's method with a partner.  
b) Why is there one counter left over?

It is a remainder.

- c) Complete the division.

$$49 \div 4 = 12 \text{ r } 1$$

- d) Use place value counters to complete the divisions.

$$50 \div 4 = 12 \text{ r } 2 \qquad 51 \div 4 = 12 \text{ r } 3$$

What do you notice?

- 2 Complete the divisions.

$$\text{a) } 47 \div 3 = 15 \text{ r } 2$$

$$\text{b) } 26 \div 5 = 5 \text{ r } 1$$

$$\text{c) } 89 \div 4 = 22 \text{ r } 1$$

$$\text{d) } 32 \div 5 = 6 \text{ r } 2$$

$$\text{e) } 49 \div 6 = 8 \text{ r } 1$$

$$\text{f) } 47 \div 4 = 11 \text{ r } 3$$

$$\text{g) } 74 \div 3 = 24 \text{ r } 2$$

$$\text{h) } 81 \div 7 = 11 \text{ r } 4$$

- 3 Complete the divisions.

$$\text{a) } 36 \div 4 = 9$$

$$37 \div 4 = 9 \text{ r } 1$$

$$38 \div 4 = 9 \text{ r } 2$$

$$39 \div 4 = 9 \text{ r } 3$$

$$40 \div 4 = 10$$

$$\text{c) } 45 \div 3 = 15$$

$$46 \div 3 = 15 \text{ r } 1$$

$$47 \div 3 = 15 \text{ r } 2$$

$$48 \div 3 = 16$$

$$49 \div 3 = 16 \text{ r } 1$$

$$\text{b) } 70 \div 5 = 14$$

$$71 \div 5 = 14 \text{ r } 1$$

$$72 \div 5 = 14 \text{ r } 2$$

$$73 \div 5 = 14 \text{ r } 3$$

$$74 \div 5 = 14 \text{ r } 4$$

$$\text{d) } 92 \div 4 = 23$$

$$91 \div 4 = 22 \text{ r } 3$$

$$90 \div 4 = 22 \text{ r } 2$$

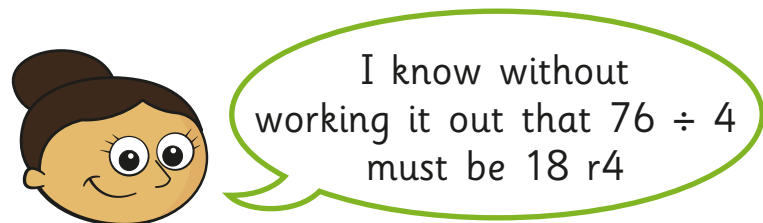
$$89 \div 4 = 22 \text{ r } 1$$

$$88 \div 4 = 22$$



- 4 Dora has been working out some divisions.

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



- a) Why does Dora think this?

She has spotted a pattern.

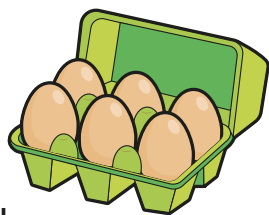
- b) Explain why Dora is wrong.

You can't have a remainder of 4 when dividing by 4

- 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.

$$\boxed{75} \div \boxed{6} = \boxed{12} \text{ r } \boxed{3}$$

- b) What does the remainder represent?  
Talk about it with a partner.

- c) Complete the sentence.

Annie can fill  $\boxed{12}$  boxes with  $\boxed{3}$  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  $\boxed{12}$  Tulips  $\boxed{15}$  Crocuses  $\boxed{24}$

How many of each bulb will be left over?

Daffodils  $\boxed{1}$  Tulips  $\boxed{3}$  Crocuses  $\boxed{2}$

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

# Divide 3-digits by 1-digit



- 1 Jack is working out  $844 \div 4$  using a place value chart.

| H       | T  | O |
|---------|----|---|
| 100 100 | 10 | 1 |
| 100 100 | 10 | 1 |
| 100 100 | 10 | 1 |
| 100 100 | 10 | 1 |

- a) Talk about Jack's method with a partner.  
b) Complete the division.

$$844 \div 4 = \boxed{211}$$

- 2 Use Jack's method to work out these divisions.

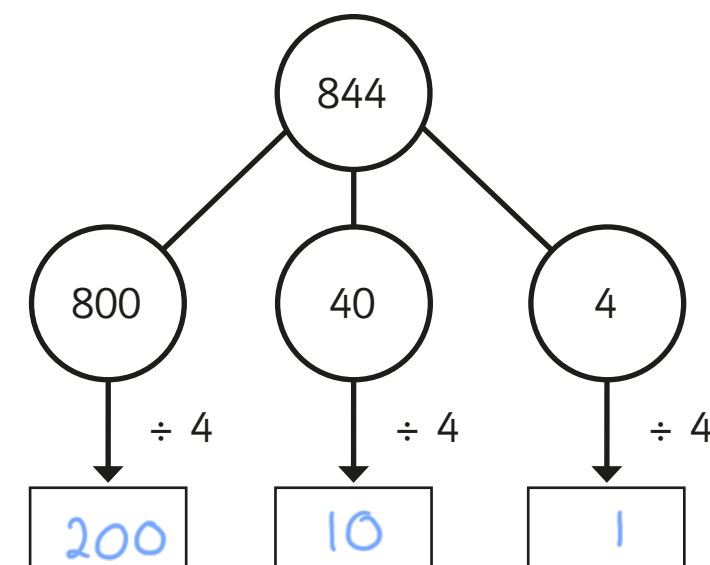
a)  $525 \div 5 = \boxed{105}$

c)  $840 \div 8 = \boxed{105}$

b)  $636 \div 6 = \boxed{106}$

d)  $903 \div 3 = \boxed{301}$

- 3 Eva is working out  $844 \div 4$  using a part-whole model.



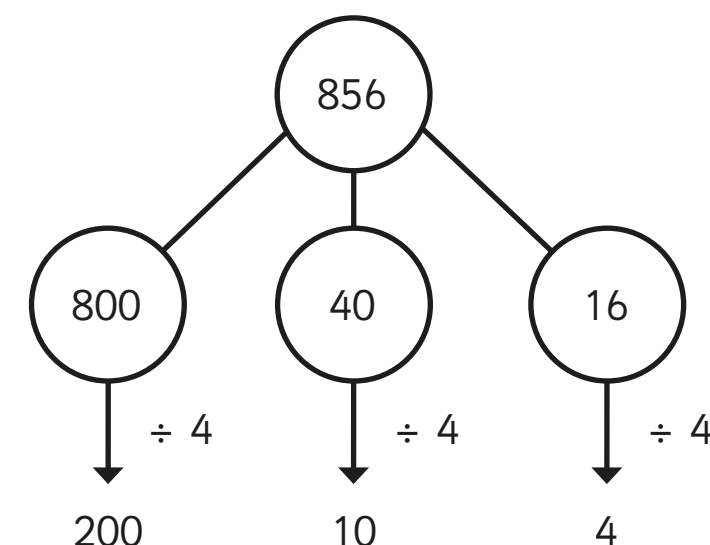
Complete Eva's method.

$$844 \div 4 = \boxed{211}$$

- 4 A ball of string is 848 cm long.  
It is cut into 4 equal pieces.  
What is the length of one piece of string?

$$\boxed{212\text{cm}}$$

- 5 Whitney is using flexible partitioning to divide a 3-digit number.



Could Whitney have partitioned her number another way?



Use Whitney's method to work out these divisions.

a)  $585 \div 5 =$  117

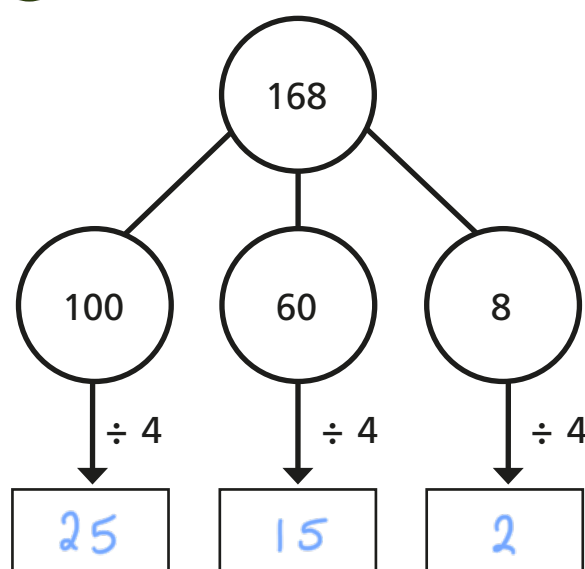
c)  $648 \div 4 =$  162

b)  $672 \div 6 =$  112

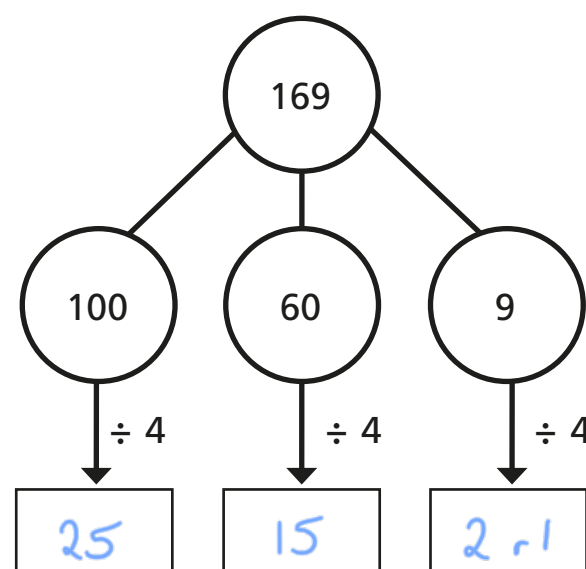
d)  $847 \div 7 =$  121



6 Complete the part-whole models and divisions.



$168 \div 4 =$  42



$169 \div 4 =$  42 r 1

What is the same and what is different about the calculations?  
Talk about it with a partner.



7 Complete the divisions.

a)  $258 \div 6 =$

c)  $864 \div 4 =$

b)  $623 \div 5 =$

d)  $824 \div 3 =$

8

Eva has a piece of ribbon.



The ribbon measures 839 cm long.

How much ribbon would be left over if she cuts it into:

a) 4 equal pieces

3 cm

b) 6 equal pieces

5 cm

c) 8 equal pieces

7 cm

Can Eva cut the ribbon into equal pieces with no ribbon left over?

Yes

Explain your answer. *839 pieces each 1 cm long.*

9

Use 15 counters and a place value chart.

a) Can you make a number that is divisible by 3?

yes

b) Can you make a number that has a remainder of 1 when divided by 3?

no

c) Can you make a number that has a remainder of 2 when divided by 3?

no

What do you notice? Talk about your findings with a partner.

