

Tricky

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

Complete the divisions.

a) $47 \div 3 =$

e) $49 \div 6 =$

b) $26 \div 5 =$

f) $47 \div 4 =$

c) $89 \div 4 =$

g) $74 \div 3 =$

d) $32 \div 5 =$

h) $81 \div 7 =$

Why is there one counter left over?

Complete the division.

$49 \div 4 =$

Complete the divisions.

a) $36 \div 4 =$

c) $45 \div 3 =$

b) $70 \div 5 =$

d) $92 \div 4 =$

$37 \div 4 =$

$46 \div 3 =$

$71 \div 5 =$

$91 \div 4 =$

$38 \div 4 =$

$47 \div 3 =$

$72 \div 5 =$

$90 \div 4 =$

$39 \div 4 =$

$48 \div 3 =$

$73 \div 5 =$

$89 \div 4 =$

$40 \div 4 =$

$49 \div 3 =$

$74 \div 5 =$

$88 \div 4 =$

Trickier – Complete fluency questions b and d from tricky section above before you tackle these questions

Dora has been working out some divisions.

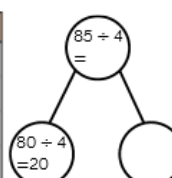
Teddy is dividing 85 by 4 using place value counters.



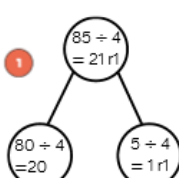
First, he divides the tens.

Then, he divides the ones.

Tens	Ones
10	
10	
10	
10	



Tens	Ones
10	1
10	1
10	1
10	1



Use Teddy's method to calculate:

$86 \div 4$ $87 \div 4$ $88 \div 4$ $97 \div 3$ $98 \div 3$ $99 \div 3$

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



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.

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.

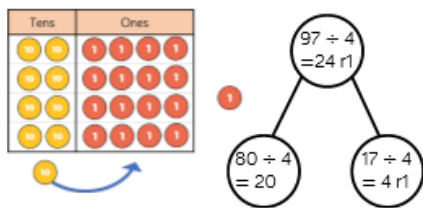
\div = r

Complete the sentence.

Annie can fill boxes with eggs left over.

Trickiest – Complete Annie Question and Eggs question from Trickier before tackling the questions below

Whitney uses the same method, but some of her calculations involve an exchange.



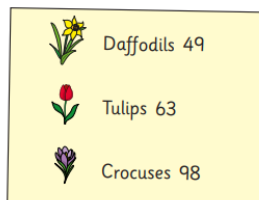
Use Whitney's method to solve

$$57 \div 4$$

$$58 \div 4$$

$$58 \div 3$$

Jack has these bulbs.



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?

37 sweets are shared between 4 friends.
How many sweets are left over?

Four children attempt to solve this problem.

- Alex says it's 1
- Mo says it's 9
- Eva says it's 9 r 1
- Jack says it's 8 r 5

Can you explain who is correct and the mistakes other people have made?

Whitney is thinking of a 2-digit number that is less than 50

When it is divided by 2, there is no remainder.

When it is divided by 3, there is a remainder of 1

When it is divided by 5, there is a remainder of 3

What number is Whitney thinking of?

Rosie writes,
 $85 \div 3 = 28 \text{ r } 1$

She says 85 must be 1 away from a multiple of 3
Do you agree?

Answers - Tricky

Why is there one counter left over?

It is a remainder. Complete the divisions.

a) $47 \div 3 = 15 \text{ r } 2$ e) $49 \div 6 = 8 \text{ r } 1$

Complete the division.

$49 \div 4 = 12 \text{ r } 1$ b) $26 \div 5 = 5 \text{ r } 1$ f) $47 \div 4 = 11 \text{ r } 3$

Use place value counters to complete the divisions.

$50 \div 4 = 12 \text{ r } 2$ $51 \div 4 = 12 \text{ r } 3$ c) $89 \div 4 = 22 \text{ r } 1$ g) $74 \div 3 = 24 \text{ r } 2$

a) $36 \div 4 = 9$ c) $45 \div 3 = 15$ $70 \div 5 = 14$ d) $92 \div 4 = 23$

$37 \div 4 = 9 \text{ r } 1$ $46 \div 3 = 15 \text{ r } 1$ $71 \div 5 = 14 \text{ r } 1$ $91 \div 4 = 22 \text{ r } 3$

$38 \div 4 = 9 \text{ r } 2$ $47 \div 3 = 15 \text{ r } 2$ $72 \div 5 = 14 \text{ r } 2$ $90 \div 4 = 22 \text{ r } 2$

$39 \div 4 = 9 \text{ r } 3$ $48 \div 3 = 16$ $73 \div 5 = 14 \text{ r } 3$ $89 \div 4 = 22 \text{ r } 1$

$40 \div 4 = 10$ $49 \div 3 = 16 \text{ r } 1$ $74 \div 5 = 14 \text{ r } 4$ $88 \div 4 = 22$

Trickier

Why does Dora think this?

She has spotted a pattern.

Explain why Dora is wrong.

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

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.

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

Annie can fill $\boxed{12}$ boxes with $\boxed{3}$ eggs left over.

$$86 \div 4 = 21 \text{ r } 2 \quad 97 \div 3 = 32 \text{ r } 1$$

$$87 \div 4 = 21 \text{ r } 3 \quad 98 \div 3 = 32 \text{ r } 2$$

$$88 \div 4 = 22 \quad 99 \div 3 = 33$$

Trickiest

Daffodils $\boxed{12}$ Tulips $\boxed{15}$ Crocuses $\boxed{24}$

How many of each bulb will be left over?

$$57 \div 4 = 14 \text{ r } 1$$

$$58 \div 4 = 14 \text{ r } 2$$

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

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

$$58 \div 3 = 19 \text{ r } 1$$

Rosie writes,
 $85 \div 3 = 28 \text{ r } 1$

She says 85 must be 1 away from a multiple of 3.
Do you agree?

I agree, remainder 1 means there is 1 left over. 85 is one more than 84 which is a multiple of 3

37 sweets are shared between 4 friends.
How many sweets are left over?

Four children attempt to solve this problem.

- Alex says it's 1
- Mo says it's 9
- Eva says it's 9 r 1
- Jack says it's 8 r 5

Can you explain who is correct and the mistakes other people have made?

Alex is correct as there will be one remaining sweet. Mo has found how many sweets each friend will receive. Eva has written the answer to the calculation. Jack has found a remainder that is larger than the divisor so is incorrect.

Whitney is thinking of a 2-digit number that is less than 50

When it is divided by 2, there is no remainder.

When it is divided by 3, there is a remainder of 1

When it is divided by 5, there is a remainder of 3

What number is Whitney thinking of?

Whitney is thinking of 28