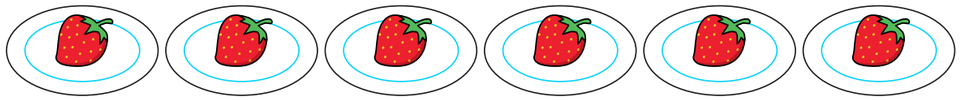
Multiply by 1 and 0

1 Write a multiplication to work out the total number of strawberries.



6 × 1 = 6

2

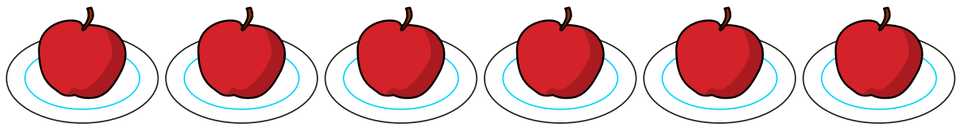
a) How many flowers are in each vase? 0

b) How many flowers are there in total?

Complete the calculation.

8 × 0 = 0

3 Circle the calculation that works out the number of apples.



6 × 0 | 6 × 1 | 6 × 2

4 How many marbles are there in total?

1 × 8 = 8

5 Complete the calculations.

a) 3 × 1 = 3

b) 1 × 3 = 3

c) 7 × 1 = 7

d) 7 × 0 = 0

e) 1 × 4 = 4

f) 1 × 14 = 14

g) 12 × 0 = 0

i) 1 × 31 = 31

6 What could the missing number be?

0 × ☐ = 0

Explain how you know.

Anything. Any number multiplied by 0 is equal to 0

7 **a)** Circle all the calculations that have an answer of zero.

39 × 1 | 95 × 0 | 178 × 0

4 × 1 | 0 × 16

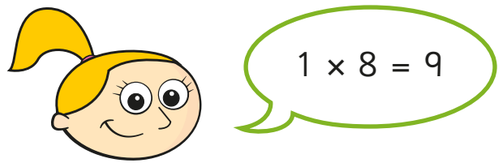
8 × 0 | 0 × 0 | 42 × 1

b) How did you work out which calculations to circle?

There was a 0 in the calculation.

8 Eva and Mo are working out some multiplication problems.

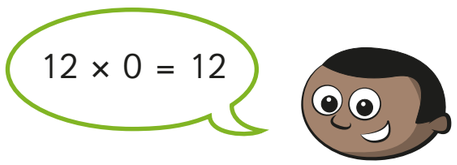
a)



What mistake has Eva made?

She has added 1 and 8

b)



What mistake has Mo made?

He has multiplied 12 by 1 not 0

Talk about your answers with a partner.

9 Work out these multiplications.

a) 2 × 1 = 2

1 × 4 = 4

2 × 4 × 1 = 8

b) 8 × 1 = 8

8 × 1 × 2 = 16

8 × 1 × 3 = 24

What pattern do you notice in each part?

Talk about it with a partner.

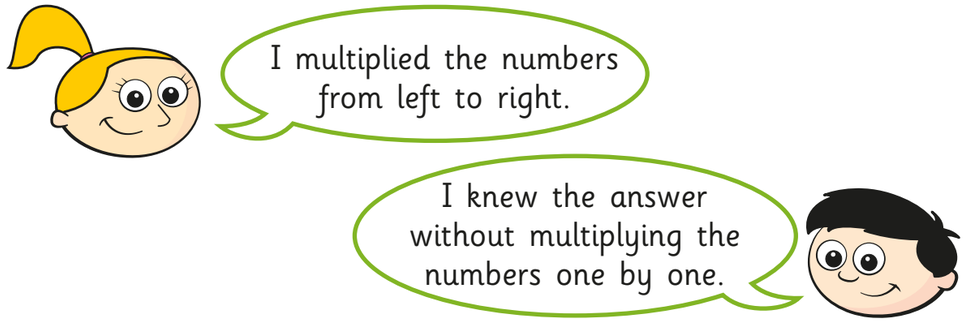
c) What multiplication would come next in part b)?

8 × 1 × 4 = 32

10 Eva and Dexter have 6 digit cards.

They multiply them all together.

3	4	0	9	1	2



What could Dexter's method be?

Talk about it with a partner.

Divide by 1 and itself

1 Annie has 5 cookies and some plates.

She wants to put 1 cookie on each plate.

a) How many plates will she need? [5]

b) Complete the calculation.

[5] ÷ [1] = [5]

2 Annie has 5 more cookies.

She has 5 friends.

She shares the cookies equally between her 5 friends.

a) How many cookies does each child get? [1]

b) Complete the calculation.

[5] ÷ [5] = [1]

3 **a)** Complete the calculations.

8 × 1 = [8] 13 × 1 = [13] 20 × 1 = [20]

8 ÷ 1 = [8] 13 ÷ 1 = [13] 20 ÷ 1 = [20]

b) What do you notice about multiplying and dividing by 1?

You get the same answer.

c) Use what you have noticed to complete these calculations.

7 × 1 = 7 ÷ [1]

10 ÷ 1 = 10 × [1]

[18] × 1 = 18 ÷ 1

4 Tick all the cards that have an answer of 1

7 ÷ 1	10 ÷ 10 ✓	5 ÷ 1
9 ÷ 9 ✓	18 ÷ 18 ✓	10 ÷ 2
6 ÷ 1	1 × 1 ✓	17 ÷ 1

How do you know if a division has an answer of 1?

5 Write >, < or = to compare the calculations.

a) 4 × 0 < 5 ÷ 1

b) 24 × 1 = 24 ÷ 1

c) 1 × 9 = 9 ÷ 1

d) 13 ÷ 1 > 31 × 0

e) 8 ÷ 8 = 9 ÷ 9

f) 10 ÷ 1 > 10 ÷ 10

6 Work out these calculations.

a) 8 ÷ 4 ÷ 1 = 2

b) 25 ÷ 1 ÷ 5 = 5

c) 9 × 4 ÷ 1 = 36

d) 12 ÷ 1 × 4 = 48

7

♥ ÷ ♥ = ▲

Complete this calculation.

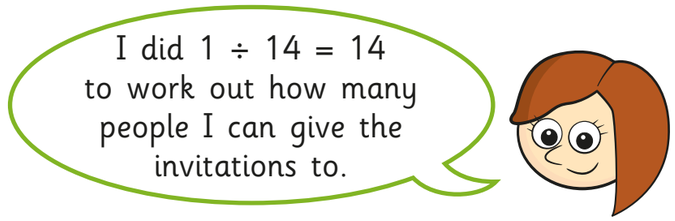
□ × ▲ = ▨

How did you work this out?

8 Rosie has 14 birthday invitations.

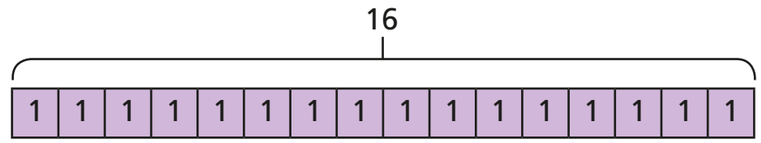
She wants to give them out to children in her class.

Each child will get 1 invitation each.

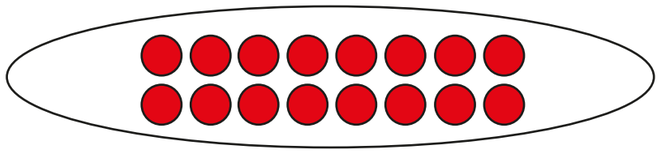


What mistake has Rosie made?

9 Explain how each image shows 16 ÷ 1



16 grouped into 1s

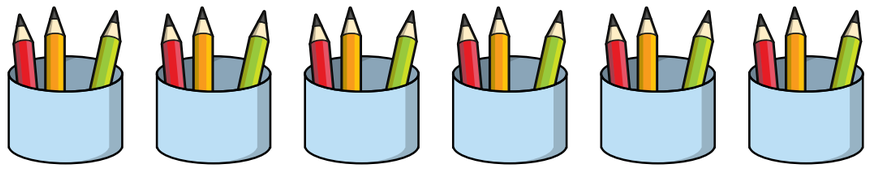


16 shared into 1 group.

Multiply by 3

1 Complete the sentences.

a)

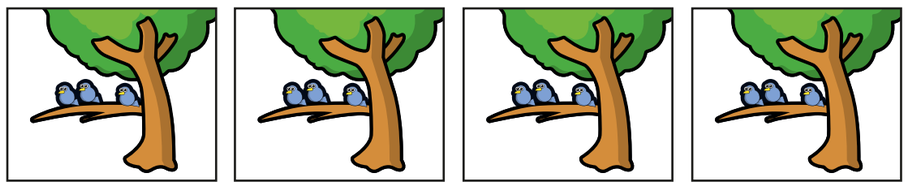


There are [6] equal groups of [3]

[3] + [3] + [3] + [3] + [3] + [3] = [18]

[6] × [3] = [18]

b)



There are [4] equal groups of [3]

[12] = [3] + [3] + [3] + [3]

[12] = [4] × [3]

c)

There are [7] equal groups of [3]

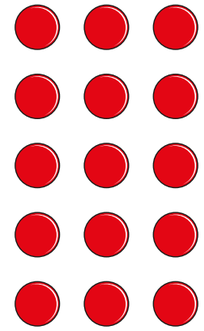
[3] + [3] + [3] + [3] + [3] + [3] + [3] = [21]

[7] × [3] = [21]

Could you write the number sentences in a different way?

2 Write two multiplication sentences for each part of the question.

a)



[3] × [5] = [15]

[5] × [3] = [15]

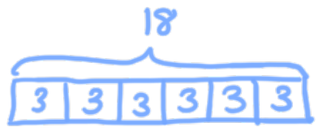
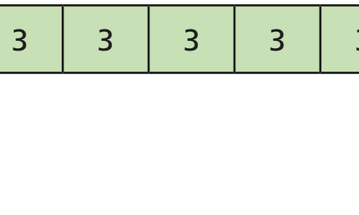
b)

3	3	3	3	3	3	3	3	3	3

10 × 3 = 30

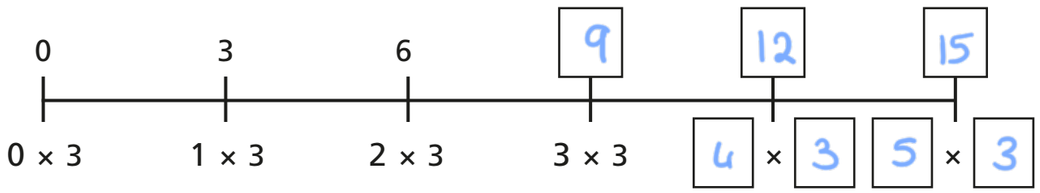
3 × 10 = 30

3 Complete the diagram.

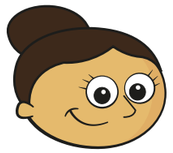
Number story	Bar model
E.g. There are 6 plates with 3 cupcakes on each plate.	
Addition sentence	**Draw it**
3+3+3+3+3+3=18	

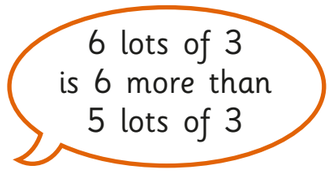
6 × 3 = 18

4 Complete the number line.



5





Do you agree with Dora? NO

Explain why.

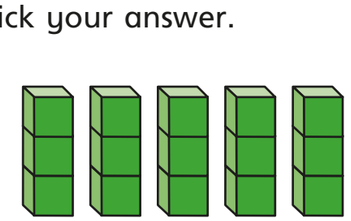
6 × 3 = 3+3+3+3+3+3

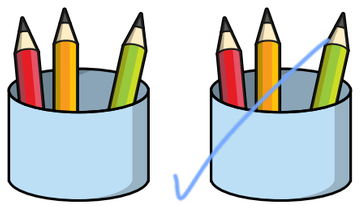
5 × 3 = 3+3+3+3+3 so its 3 more.

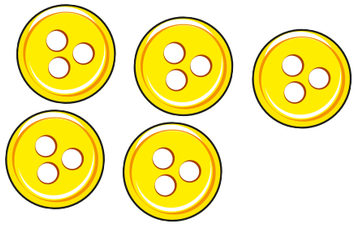
6 Which is the odd one out?

Tick your answer.

E.g.







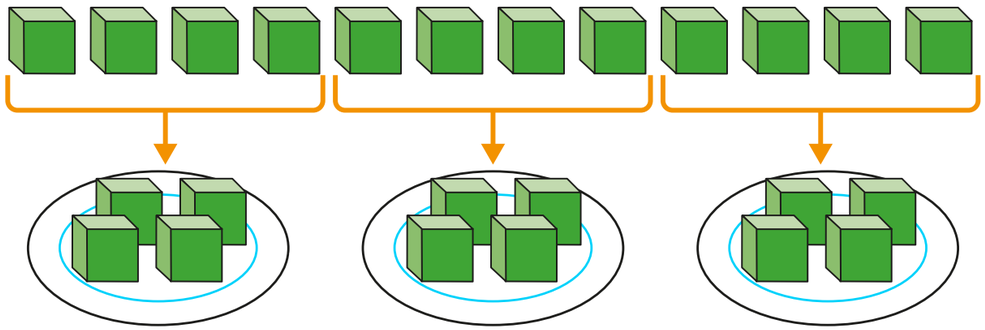
Explain your answer.

It shows 2×3, the others show 5×3 or 3×5

Is there more than one answer?

Divide by 3

1



Complete the sentences.

There are 12 cubes.

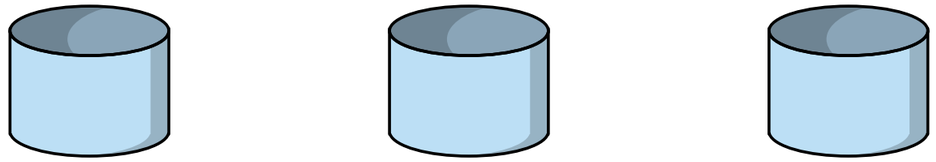
There are [3] plates.

Each plate has [4] cubes.

12 divided into [3] equal groups is [4]

2 Mo has 15 pencils.

He shares them equally into 3 pots.

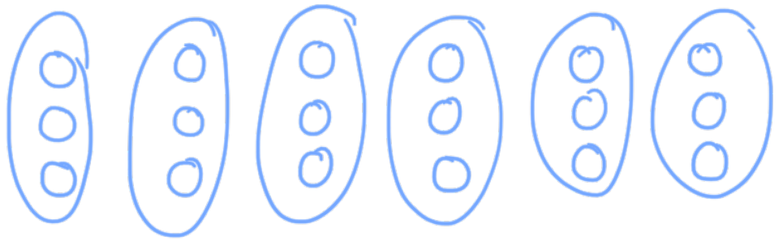


How many pencils will there be in each pot?

There will be [5] pencils in each pot.

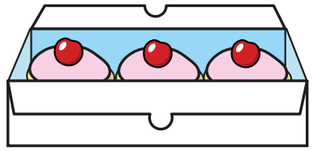
3 Divide 18 counters into groups of 3 counters.

Draw a picture to show what this would look like.



How many groups did you draw? [6]

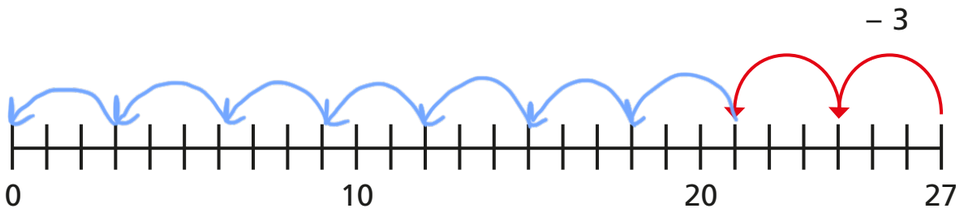
4 There are 27 cakes.



A box can hold 3 cakes.

How many boxes of 3 cakes can be filled?

Use the number line to help you.



[9] boxes of 3 cakes can be filled.

5 Complete the bar model for the division 33 ÷ 3 = 11

33		
11	11	11

Is there more than one way to do this?

6 Complete the division statements for each problem.

a) Esther has 21 balloons.

She puts them into 3 party bags.

How many balloons are in each party bag?

[21] ÷ [3] = [7]

b) Nijah has 36 apples.

In each box there are 3 apples.

How many boxes are there?

[36] ÷ [3] = [12]

c) 24 children stand in groups of 3

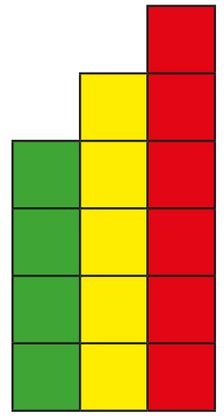
How many groups are there?

[24] ÷ [3] = [8]

7 Numbers that follow each other when you count are called consecutive numbers.

Three consecutive numbers can form a staircase.

Here is 4, 5 and 6



When you add three consecutive numbers, the total can always be divided equally by 3

Is this statement correct?

Talk about it with a partner.