

# Multiplying

How many beakers on each tablecloth?

1.  $3 \times 3 = 9$



Draw a grid to match each multiplication. Write the number of squares.

7. 


  
 $3 \times 4 = 12$

7.  $3 \times 4$

8.  $2 \times 5$

9.  $4 \times 5$

10.  $6 \times 2$

11.  $5 \times 5$

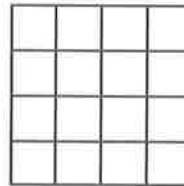
12.  $3 \times 10$

13.  $2 \times 2$

14.  $9 \times 2$



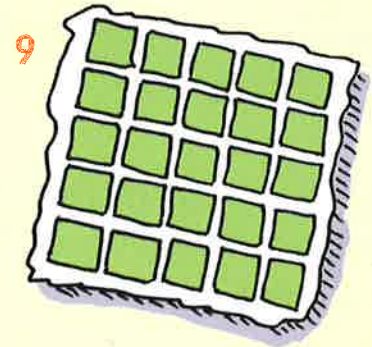
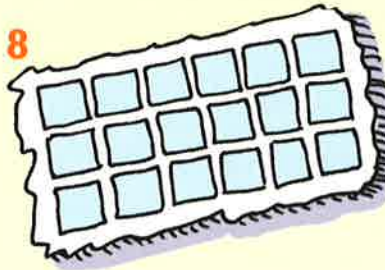
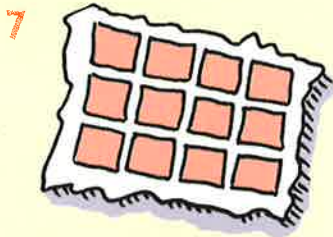
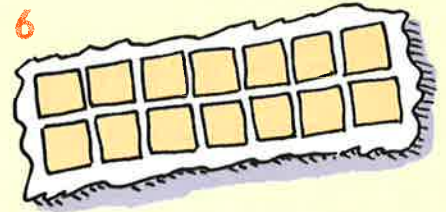
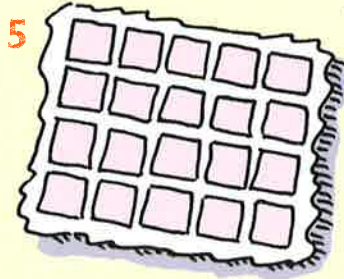
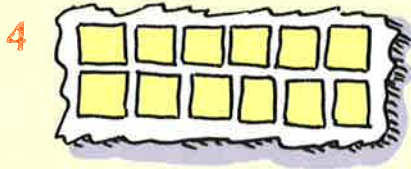
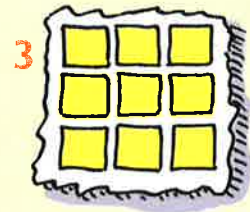
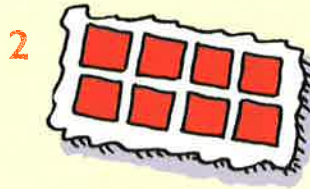
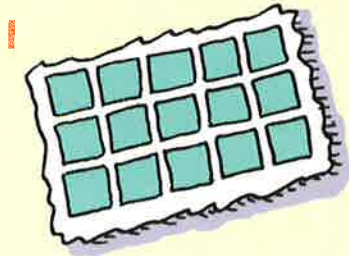
Write multiplications to match different square grids, e.g.  $4 \times 4 = 16$ .



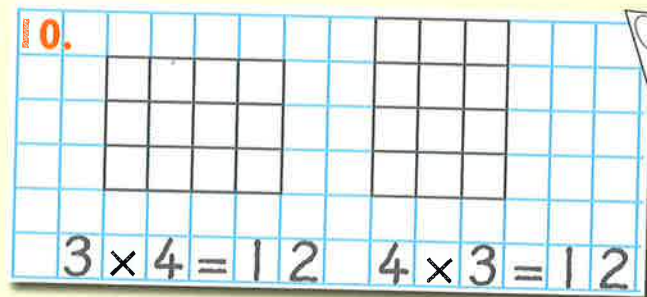
I can make multiplication sentences to match arrays

How many stickers on each sheet?

$$1. 3 \times 5 = 15$$



Draw and label two grids that match each number.



10 12

11 20

12 15

13 6



How many grids can you draw that have 24 squares?

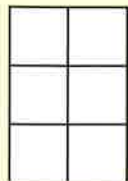




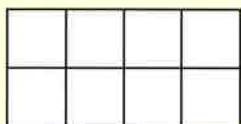
# Multiplying

Write pairs that show the same multiplication.

I. 1 and 4



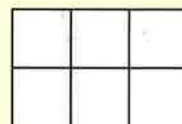
2



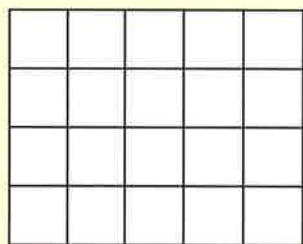
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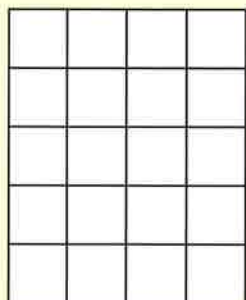
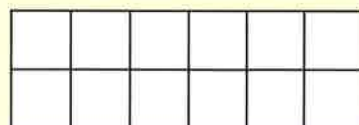
4



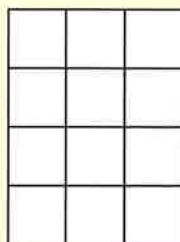
5



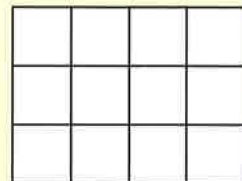
6



9



10



8



Use 12 squares to draw as many rectangles as you can.

Make another multiplication using these numbers and find the answer:

II.  $2 \times 4 = 8$



1  $4 \times 2$

12  $3 \times 5$

13  $8 \times 2$

4  $4 \times 6$

15  $7 \times 3$

16  $2 \times 9$

7  $6 \times 3$

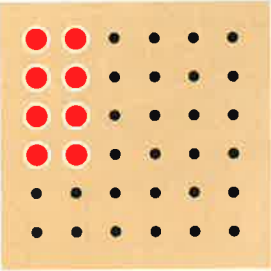
18  $5 \times 4$

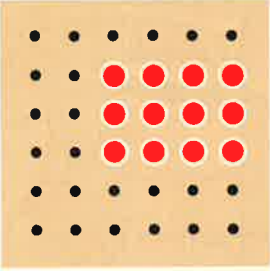
19  $6 \times 7$

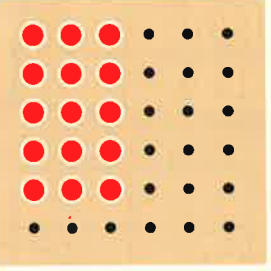
Write two multiplications for each set of pegs.

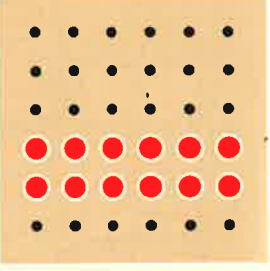
1.	$2 \times 4 = 8$
	$4 \times 2 = 8$

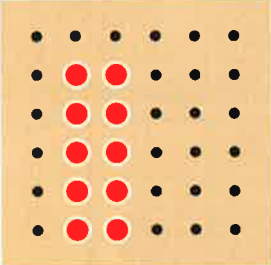


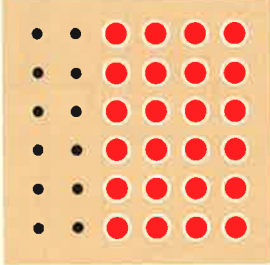
1 

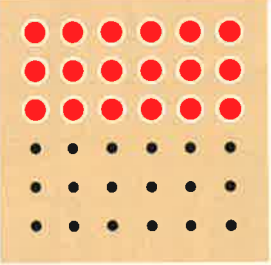
2 

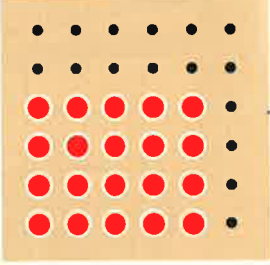
3 

4 

5 

6 

7 

8 

Copy and complete.

9  $3 \times 3 = \square$

10  $4 \times 2 = \square$

11  $5 \times 5 = \square$

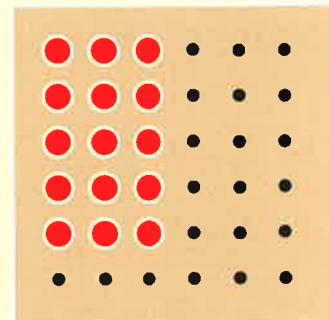
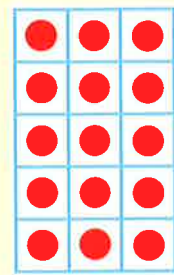
12  $5 \times 2 = \square$

13  $3 \times 5 = \square$

14  $4 \times 3 = \square$



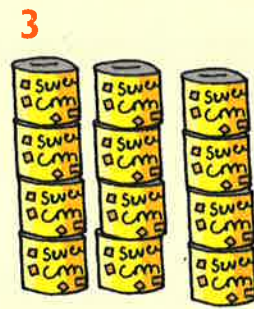
How many different multiplications can you show on a  $6 \times 6$  pegboard? Use between 10 and 20 pegs. Draw them on squared paper.



# Multiplying and dividing

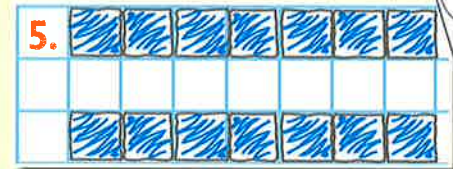
Write a division for each set.

$$1. 6 \div 3 = 2$$



Write a matching multiplication for each set.

Draw pictures for these divisions.



5  $14 \div 2$

6  $9 \div 3$

7  $15 \div 5$

8  $20 \div 4$

9  $10 \div 2$

10  $24 \div 6$

11  $30 \div 10$

12  $25 \div 5$

Write a multiplication and division for each set.

13.  $4 \times 3 = 12$   
 $12 \div 3 = 4$



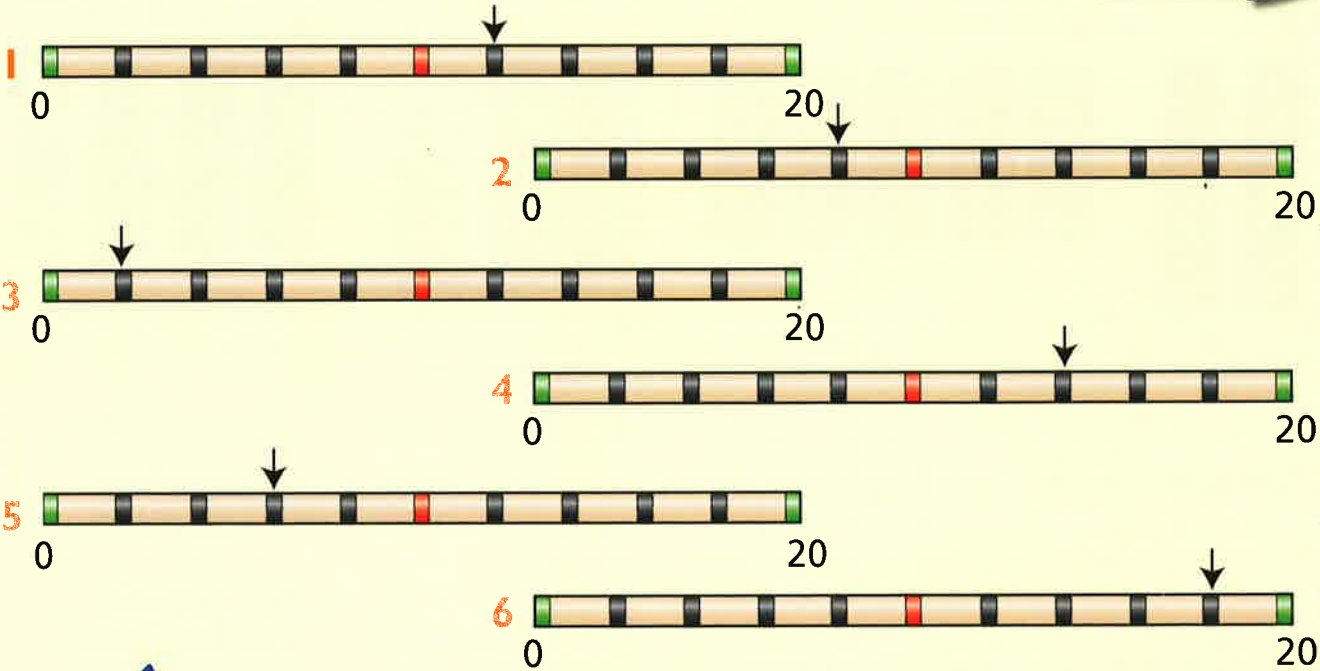
I can write multiplication and division sentences to describe a picture



# Multiplying by 2

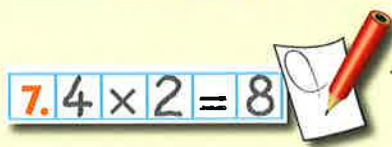


Write the position of the pointer on each stick.



Draw your own counting stick from 0 to 20. Mark four places on the stick. Write the positions.

Copy and complete.



7  $4 \times 2 = \square$

8  $7 \times 2 = \square$

9  $\square \times 2 = 10$

10  $3 \times 2 = \square$

11  $8 \times 2 = \square$

12  $\square \times 2 = 18$

13  $5 \times 2 = \square$

14  $10 \times 2 = \square$

15  $6 \times 2 = \square$

16  $\square \times 2 = 6$

17  $\square \times 2 = 4$

18  $9 \times 2 = \square$



## Fours

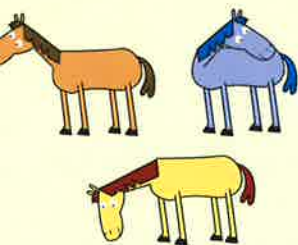
Copy and complete the grid.

1	2	3	4
5	6		

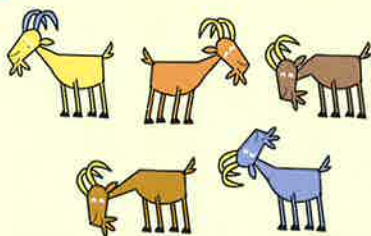
Write the last number in the:

- |   |         |   |          |
|---|---------|---|----------|
| 1 | 2nd row | 2 | 10th row |
| 3 | 5th row | 4 | 4th row  |
| 5 | 3rd row | 6 | 7th row  |
| 7 | 6th row | 8 | 9th row  |

Each animal has four legs. Write the number of legs in each set of animals.



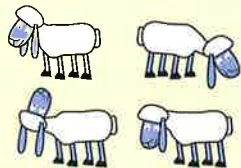
10



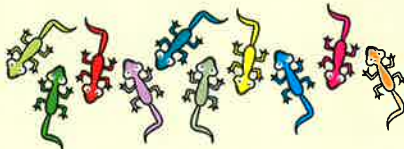
11



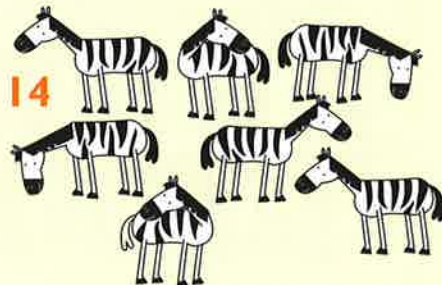
2



13



14



Think of things in your life that you count in 4s.

Copy and complete using doubling.

1  $3 \times 2 = 6$

$3 \times 4 = \square$

2  $5 \times 2 = 10$

$5 \times 4 = \square$

3  $7 \times 2 = \square$

$7 \times 4 = \square$

4  $4 \times 2 = \square$

$4 \times 4 = \square$

5  $9 \times 2 = \square$

$9 \times 4 = \square$

6  $6 \times 2 = \square$

$6 \times 4 = \square$

7  $8 \times 2 = \square$

$8 \times 4 = \square$

1.	3	×	2	=	6	
	3	×	4	=	12	



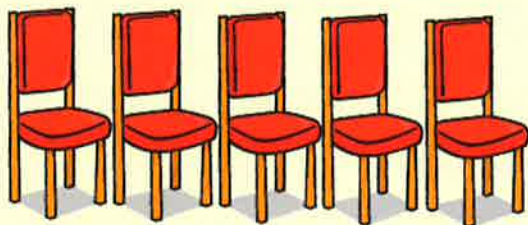
Make the 8 times-table using the 4 times-table.

Each chair has four legs.  
Write the number of legs.

8.  $5 \times 4 = 20$



8



9



10  $2 \times 4 =$

11  $3 \times 4 =$

12  $10 \times 4 =$

13  $7 \times 4 =$

14  $4 \times 4 =$

15  $9 \times 4 =$

16  $6 \times 4 =$

17  $5 \times 4 =$

18  $8 \times 4 =$

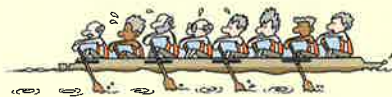




# Eights

Each boat in the race has eight rowers.  
Write the number of rowers in each group.

$$1. 4 \times 8 = 32$$



4 6 boats

5 8 boats

6 7 boats

Write how many boats are needed for these rowers:



16 rowers



48 rowers



56 rowers

10 24 rowers

11 32 rowers

12 80 rowers



If each boat can only take six rowers, how many boats are needed each time? Are there any spaces left?



I can build up the 8 times-table

Each bus has 10 passengers.  
Write the number of passengers.

$$1. 4 \times 10 = 40$$



1



2



3



4 6 buses

5 8 buses

6 7 buses

Write how many buses are needed for these passengers:

7 20

8 50

9 80

10 30

11 70

12 100



If each bus can only take eight passengers, how many buses are needed each time? Are there any spaces left?





# Fives and tens

Write a multiplication for each set of toes.

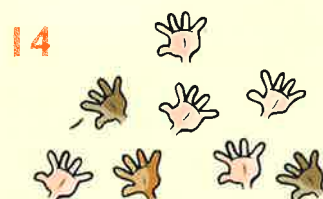
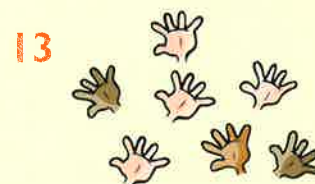
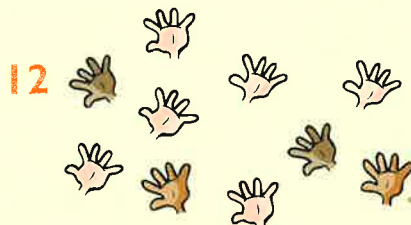
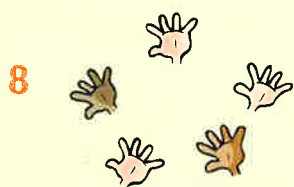
$$1. 3 \times 10 = 30$$



How many toes in your classroom? Include your teacher.

Write a multiplication for each set of fingers.

$$8. 5 \times 5 = 25$$



I can build up the 5 and 10 times-tables



Write the value of each pile of coins.

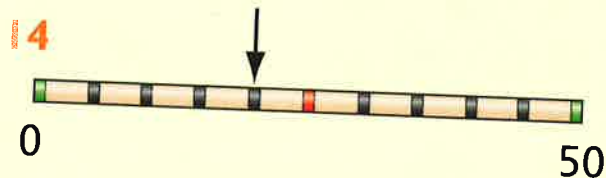
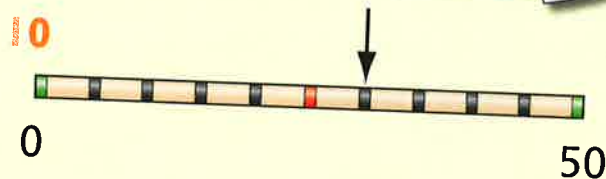
$$1. 3 \times 5 \text{ p} = 15 \text{ p}$$



Write what must be added to make each pile worth £1.

Write the position of the pointer on each stick.

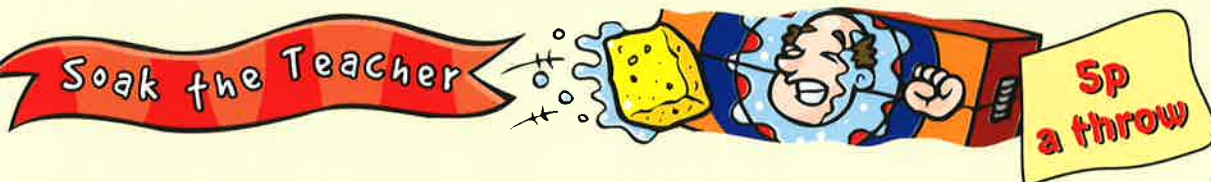
$$9. 15$$



# Fives and tens

Write the cost.

$$1. 4 \times 5 \text{ p} = 20 \text{ p}$$



4 throws

2 2 throws

3 7 throws

10 throws

5 20 throws

6 6 throws

Find how many throws you can have for each coin: 1p, 2p, 5p, 10p, 50p, £1, £2...

Copy and complete.

$$7. 4 \times 5 = 20$$

$$4 \times 5 = \square$$

$$8 \quad 6 \times 10 = \square$$

$$9 \quad 7 \times 5 = \square$$

$$10 \quad 4 \times 10 = \square$$

$$11 \quad 6 \times 5 = \square$$

$$12 \quad 8 \times 5 = \square$$

$$13 \quad 7 \times 10 = \square$$

$$14 \quad 9 \times 10 = \square$$

A clever way for multiplying by 5 is:

multiply by 10, then halve it

For example:  $9 \times 5 \longrightarrow 9 \times 10 = 90$   
half of 90 = 45

Use a clever way to try these:

$$5 \quad 7 \times 5 =$$

$$16 \quad 12 \times 5 =$$

$$17 \quad 21 \times 5 =$$

$$8 \quad 32 \times 5 =$$

$$19 \quad 46 \times 5 =$$

$$20 \quad 14 \times 5 =$$





Frog starts at 0 and hops along the bank in 3s. Write a multiplication to show where he will be after:

1.  $4 \times 3 = 12$

- 1. 4 jumps
- 2. 6 jumps
- 3. 3 jumps
- 4. 10 jumps
- 5. 8 jumps
- 6. 5 jumps
- 7. 9 jumps
- 8. 2 jumps
- 9. 7 jumps

How many jumps does Frog need to reach:

10.  $9 \div 3 = 3$

- 10. 9
- 11. 15
- 12. 27
- 13. 6
- 14. 30
- 15. 21
- 16. 12
- 17. 24
- 18. 18



Frog starts at 0 and does one hop every minute. What number does he reach in an hour?



I can build up the 3 times-table



# Threes and sixes

Each clover has three leaves. Write the number of leaves in each set.

$$1. 5 \times 3 = 15$$



Copy and complete 10 rows. Write the last number in the:

1	2	3	4	5	6
7	8	9	10	11	

$$7. 24$$



7 4th row

8 7th row

9 2nd row

10 10th row

11 5th row

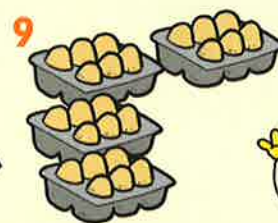
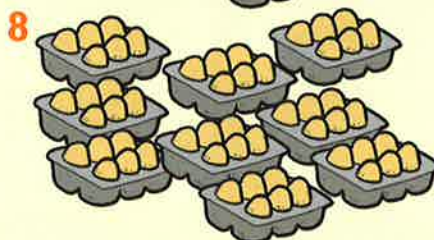
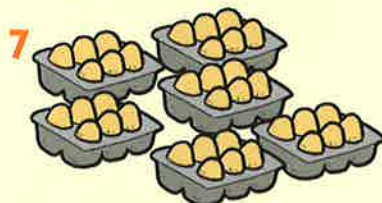
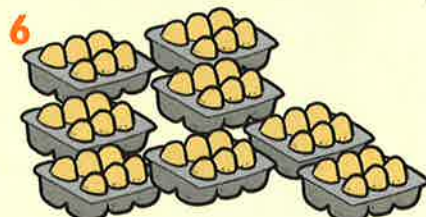
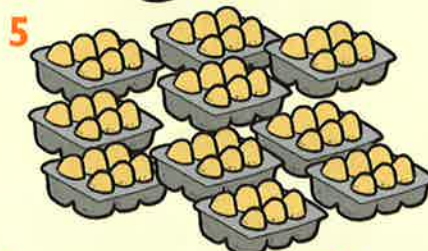
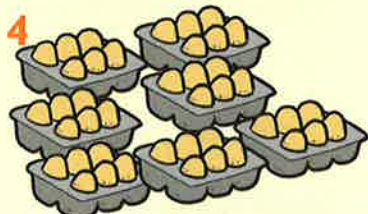
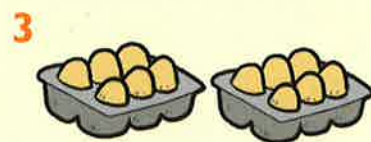
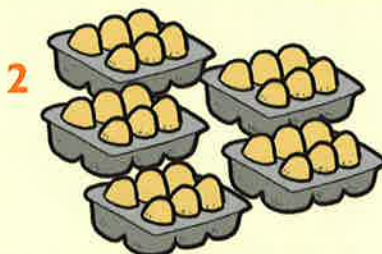
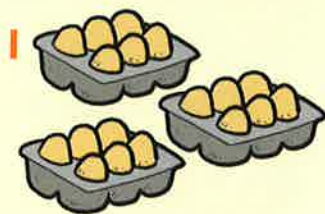
12 6th row



Write the next 10 row ends in the pattern without drawing the table.

Write how many eggs in each set.

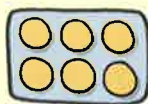
$$1. 3 \times 6 = 18$$



Which number of eggs between 40 and 50 will fit exactly in boxes of 6?



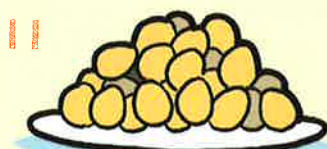
Write how many boxes can be filled with these eggs:



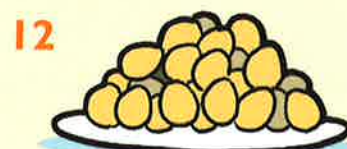
$$10. 18 \div 6 = 3 \text{ boxes}$$



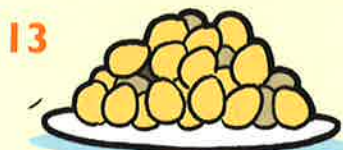
18 eggs



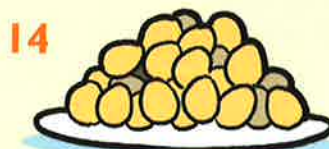
30 eggs



54 eggs



36 eggs



24 eggs

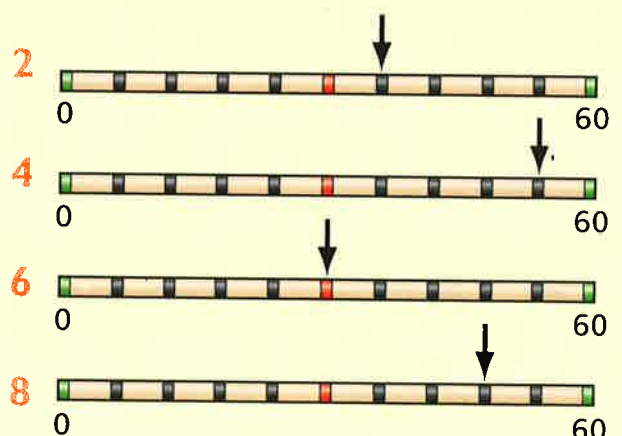
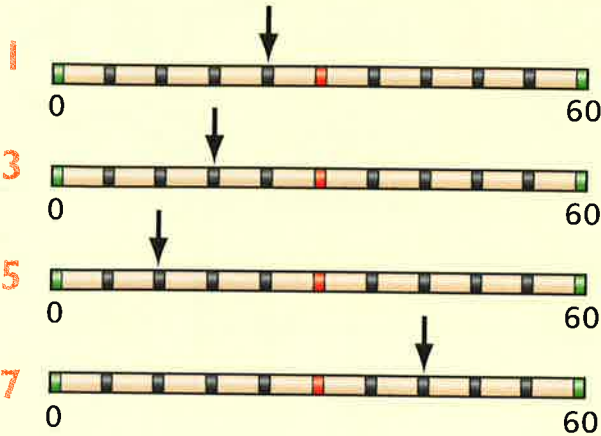


42 eggs





Write the position of the pointer on each counting stick.



9 47 oranges are put into bags of six. How many bags are there and how many oranges are left over?



10 Stickers are 6p each. Sanjay has a £1 coin, and he buys one sticker every day for a week. How much has he left?

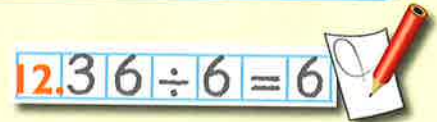


11 Katie works in the corner shop on every day except Sunday. How many days will Katie have worked after 9 weeks?



Write your own word problem for this division:  $24 \div 6 = 4$ .

Copy and complete.



12  $36 \div 6 = \square$

13  $18 \div 6 = \square$

14  $42 \div 6 = \square$

15  $12 \div 6 = \square$

16  $54 \div 6 = \square$

17  $60 \div 6 = \square$

18  $24 \div 6 = \square$

19  $30 \div 6 = \square$

20  $48 \div 6 = \square$

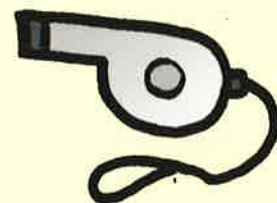


I can use the 6 times-table



- 1 Complete the 3s, then double to complete the 6s.

3s	3	6	9	12						
6s	6									



- 2 Complete the 1s and 5s, then add to complete the 6s.



1s	1	2	3	4						
5s	5	10								
6s	6									

- 3 Find the 6s by adding the 2s and 4s.



Find the 9s by adding the 3s and 6s.  
How else could you have found the 9s?

Copy and complete.

4  $4 \times 3 = \dots \rightarrow 4 \times 6 = \dots$

5  $7 \times 3 = \dots \rightarrow 7 \times 6 = \dots$

6  $9 \times 3 = \dots \rightarrow 9 \times 6 = \dots$

7  $11 \times 3 = \dots \rightarrow 11 \times 6 = \dots$



8  $3 \times 6 =$

9  $8 \times 6 =$

10  $2 \times 6 =$

11  $5 \times 6 =$

12  $6 \times 6 =$

13  $20 \times 6 =$



# Multiplying and dividing

Write a division to match each set.

1.  $12 \div 3 = 4$



Write two multiplications for each.

Copy and complete. Write two divisions to match each.

7  $3 \times 5 = \square$

8  $4 \times 6 = \square$

9  $5 \times 7 = \square$

10  $2 \times 8 = \square$

11  $6 \times 3 = \square$

12  $10 \times 4 = \square$

13  $8 \times 5 = \square$

14  $5 \times 4 = \square$

15  $9 \times 10 = \square$



Use these cards:

6 3 4 2 12 = ÷ ×

Investigate how many different multiplications and divisions can be made.

$12 \div 4 = 3$



I can make connections between multiplication and division problems



# Multiplying and dividing

1 Copy and complete the multiplication table.



×	1	2	3	4	5	6
1						
2				8		
3						
4						
5						
6						

2 Choose five numbers in the table, and write two divisions for each.

2.  $8 \div 4 = 2$   
 $8 \div 2 = 4$



True or false?



3 Two 5p coins have the same value as five 2p coins.

4 Five 10p coins have the same value as ten 5p coins.

Use these multiplication facts to complete the sums:

$4 \times 12 = 48$     $6 \times 24 = 144$     $8 \times 15 = 120$   
 $8 \times 12 = 96$     $4 \times 24 = 96$

5  $48 \div 4 = \square$

6  $24 \times 6 = \square$

7  $120 \div 8 = \square$

8  $96 \div 4 = \square$

9  $96 \div 12 = \square$

10  $120 \div 15 = \square$

11  $15 \times 8 = \square$

12  $24 \times 4 = \square$

13  $144 \div 6 = \square$



# Multiplying and dividing by 2

Write the cost of:

$$1.3 \times 2 \text{ p} = 6 \text{ p}$$



1 3 throws                      2 8 throws

3 4 throws                      4 9 throws

5 6 throws                      6 2 throws

7 10 throws                    8 7 throws

9 17 throws



True or false?

10 If a number is multiplied by 2, the result is always an even number.

11 Half of 16 is the same as  $16 \div 2$ .

12 If a number is divided by 2, the result is always an odd number.

13 If Karen paid 20p for six 2p stamps, how much change does she have?



14 There are 18 socks mixed up in a drawer. How many pairs will they make?



15 What is the difference between 8 times 2 and the number of 2s in 14?

16 What is the total of 7 multiplied by 2 and 20 divided by 2?

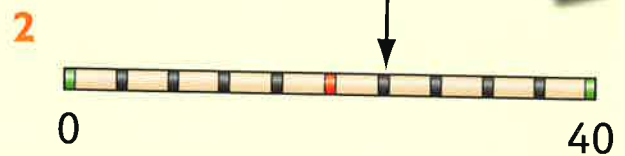
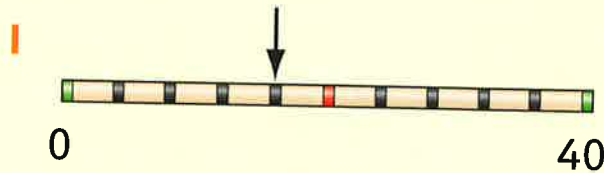


I can recall and use multiplication facts in the 2 times-table



# Multiplying and dividing by 4

Write the position of each pointer on the stick.



1. 16

Copy and complete.

3.  $12 \div 4 = 3$

3  $12 \div 4 =$

6  $4 \div 4 =$

9  $32 \div 4 =$

4  $20 \div 4 =$

7  $36 \div 4 =$

10  $24 \div 4 =$

5  $40 \div 4 =$

8  $28 \div 4 =$

11  $16 \div 4 =$



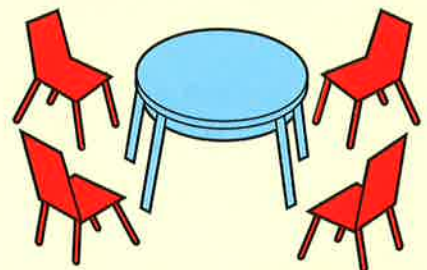
Which numbers between 40 and 80 can be divided by 4?

- 12 How many season changes are there in 6 years?



- 13 Gary eats 4 slices of bread every day. How many slices does he eat in a fortnight?

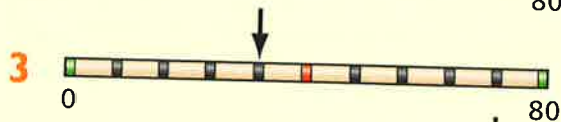
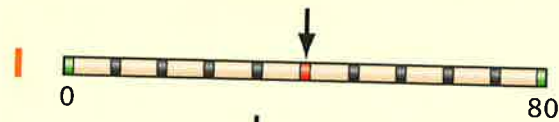
- 14 The café has 4 chairs to each table. A coach party of 34 people come for a drink. How many tables will they need?



# Multiplying and dividing by 8

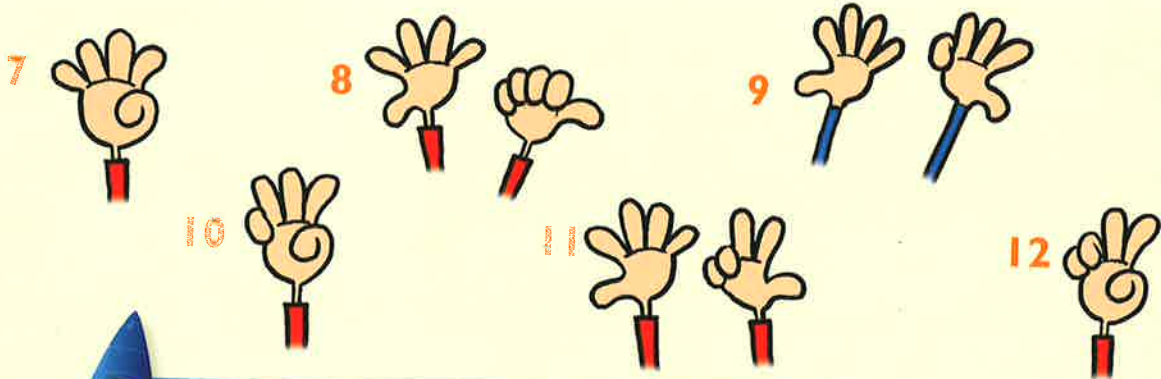
Write the position of each pointer on the counting sticks.

1. 40



The children hold up one finger for each 8. Write how many they have counted.

7.  $4 \times 8 = 32$



How many fingers should the children hold up to show multiples of 10? How many hands are needed to show 240?

Copy and complete.

13.  $2 \times 8 = 16$

13  $2 \times 8 = \square$

14  $7 \times 8 = \square$

15  $5 \times 8 = \square$

16  $32 \div 8 = \square$

17  $11 \times 8 = \square$

18  $64 \div 8 = \square$

19  $6 \times 8 = \square$

20  $9 \times 8 = \square$

21  $0 \times 8 = \square$

22  $24 \div 8 = \square$

23  $8 \div 8 = \square$

24  $20 \times 8 = \square$

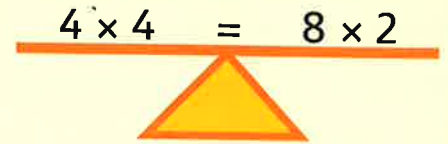


I can recall and use multiplication facts in the 8 times-table



# Twos, fours and eights

Fill in the missing number to make these balance.



1  $2 \times 4 = \square \times 1$

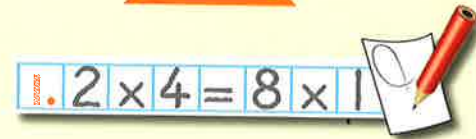
2  $4 \times 6 = 8 \times \square$

3  $\square \times 2 = 4 \times 5$

4  $32 \div \square = 2 \times 4$

5  $16 \div 2 = 2 \times \square$

6  $36 \div 9 = \square \div 5$



Make up some balance questions, using your 2, 4 and 8 facts, for a friend to solve.

7 Two sweets cost 18p. How much does one sweet cost?

8 Angus buys 4 pencils. The pencils cost 9p each. How much will this cost? How much change will he get from 40p?

The rugby competition has 2 leagues. Each league has 5 teams.

9 How many teams are there altogether?

10 A mini rugby team has 8 players. How many players are at the competition?

11 The top team in each league win medals. How many medals are needed altogether?

12  $2 \times 4 = 8$ ,  $4 \times 2 = 8$ ,  $8 \times 1 = 8$

What other similar patterns can you find in the 2, 4 and 8 times tables?



Copy and complete these divisions.

$$1. 35 \div 5 = 7$$

$$1 \quad 35 \div 5 = \square$$

$$2 \quad 80 \div 10 = \square$$

$$3 \quad 40 \div 5 = \square$$

$$4 \quad 60 \div 10 = \square$$

$$5 \quad 25 \div 5 = \square$$

$$6 \quad 70 \div 10 = \square$$

$$7 \quad 15 \div 5 = \square$$

$$8 \quad 40 \div 10 = \square$$

$$9 \quad 45 \div 5 = \square$$

Write a matching multiplication for each.

- 10 Gill collects 5p coins in a jar. She collects 7 in the first week and 5 in the next week. How many coins does she now need to make £1?



- 11 45 players arrive for the school 5-a-side competition. How many teams can be made?

- 12 42 children are going by car on a school trip. Each car can take 5 children. How many cars are needed?



A clever way to divide by 5 is:

divide by 10, then double it

For example:  $80 \div 5 \longrightarrow 80 \div 10 = 8$   
double 8 = 16

Use this clever way to try these:

$$13 \quad 60 \div 5 = \square$$

$$14 \quad 90 \div 5 = \square$$

$$15 \quad 70 \div 5 = \square$$

$$16 \quad 160 \div 5 = \square$$

$$17 \quad 120 \div 5 = \square$$


$$18 \quad 230 \div 5 = \square$$



I can recall and use division facts in the 5 and 10 times-tables




Fill in the missing numbers to make these balance.

$$5 \times 2 = 10 \times 1$$


1  $5 \times 8 = \square \times 10$

2  $5 \times 4 = 2 \times \square$

1.  $5 \times 8 = 4 \times 10$



3  $6 \times \square = 3 \times \square$

4  $50 \div \square = 5 \times 1$

5  $40 \div 5 = \square \div 10$

6  $60 \div 5 = \square \div \square$

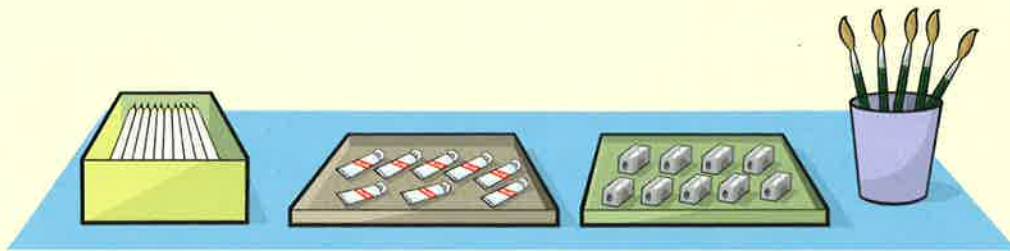


Make up some balance questions, using your 5 and 10 facts, for a friend to solve.

How many all together?

7.  $3 \times 10 = 30$





7 3 boxes of pencils

8 5 pots of paint brushes

9 5 glue trays

10 10 trays of pencil sharpeners

11 8 boxes of pencils

12 7 pots of paint brushes

13 10 glue trays

14 5 trays of pencil sharpeners

15 4 boxes of pencils

16 4 pots of paint brushes

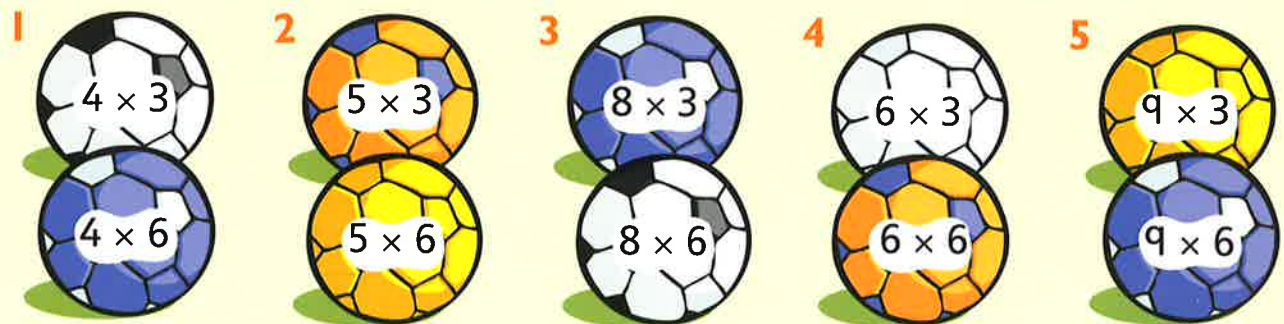
17  $10 \times 4 = 40$ . Half of 10 is 5. Double 4 is 8. So  $5 \times 8 = 40$ . Does this halving and doubling always work?



# Threes and sixes

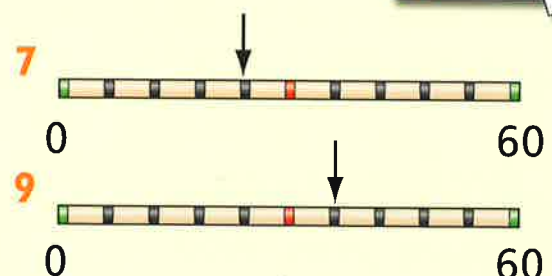
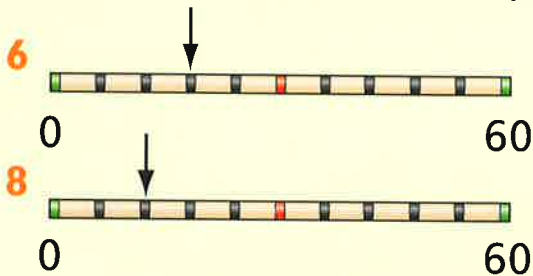
Copy and complete.

1.	$4 \times 3 = 12$		
	$4 \times 6 = 24$		



Write the position of the pointer on each stick.

6.	18
----	----



Football teams get 3 points for a win and 1 point for a draw.  
Write the number of points.

10.	$6 \times 3 = 18$		
	$4 \times 1 = 4$		
	$18 + 4 = 22$	points	

- |   |                                     |  |
|---|-------------------------------------|--|
| 10 Ayr<br>6 wins<br>4 draws             | 11 Dundee<br>8 wins<br>3 draws      | 12 Inverness Caledonian<br>9 wins<br>5 draws |
| 13 Partick Thistle<br>4 wins<br>6 draws | 14 Ross County<br>7 wins<br>4 draws | 15 Queen of the South<br>3 wins<br>2 draws   |



Find the points if teams get 4 points for a win and 2 points for a draw



I can recall multiplication and division facts in the 3 and 6 times-table



Write out the 9 times-table. Use it to help you complete these.

1   $\times 9 = 18$

2  $3 \times 9 =$

3  $72 \div 9 =$

4   $\div 9 = 10$

5  $4 \times 9 =$

6  $9 \times$    $= 9$

7   $\div 9 = 9$

8   $\div 5 = 9$

9   $\times 9 = 72$

10  $54 \div$    $= 9$

11   $\times 9 = 63$

12  $36 \div$    $= 9$

True or false?

13 In a multiplication fact where one number is 9, the answer has digits that add up to 9.

14 Three nines is an even number.

15 When a number is multiplied by 9, the answer is always odd.

16 If an even number is multiplied by 9 the answer is always odd.

17 Seven nines is a number that ends in 9.

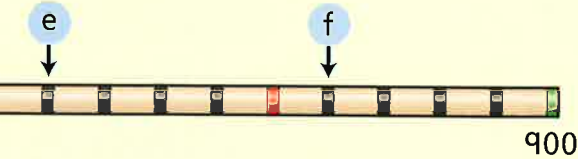
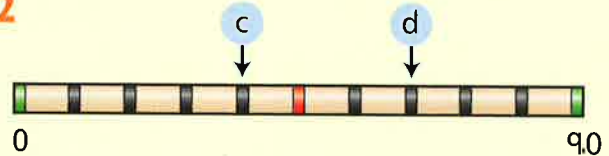
18 If an odd number is multiplied by 9 the answer is always even.



Write the position of each pointer.



2



4



Pandit paid 9p for every sticker. He has 9 stickers. How much did he spend?



A dressmaker sewed 9 sequins onto each dress. She had 72 sequins. How many dresses did she decorate?



Cans of drink are sold in packs of 9. Dad bought 6 packs and his children drank 5 each day. How long did the packs last?

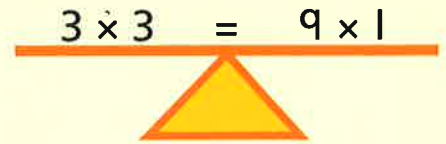


Take a number, for example: 549  
 Add the digits:  $5 + 4 + 9 = 18$   
 Add the digits of the answer.  
 Keep going until you reach a single digit:  $1 + 8 = 9$   
 If the digit is 9, it means that the number is in the  $\times 9$  table.  
 Write ten numbers greater than 500 that are in the  $\times 9$  table.



# Threes, sixes and nines

Fill in the missing number to make these balance.



1  $3 \times 8 = \square \times 4$

2  $9 \times 2 = 6 \times \square$

1.  $3 \times 8 = 6 \times 4$

3  $6 \times 2 = 3 \times \square$

4  $36 \div \square = 2 \times 3$

5  $18 \div 2 = 3 \times \square$

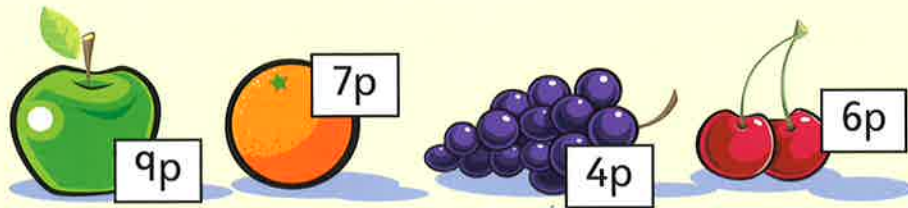
6  $36 \div 9 = \square \div 6$



Make up some balance questions, using your 3, 6 and 9 facts, for a friend to solve.

How many all together?

7.  $3 \times 7 \text{ p} = 21 \text{ p}$



7 3 oranges

8 5 apples

9 6 bunches of grapes

10 3 lots of cherries

11 6 oranges

12 7 apples

13 9 bunches of grapes

14 7 lots of cherries

15 3 oranges

16 4 apples

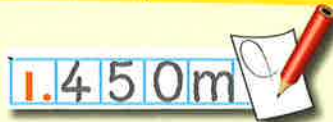
17 3 bunches of grapes

18 9 lots of cherries



# Multiplying by 10 and 100

Each hedgehog does a sponsored walk around their gardens. Write how far each walks after 10 laps of the garden.



1 lap = 45 m

2



1 lap = 38 m

3



1 lap = 62 m



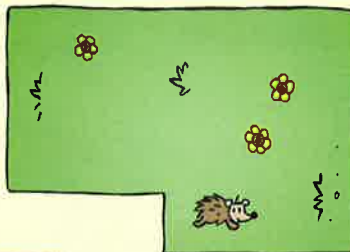
1 lap = 74 m

5



1 lap = 28 m

6



1 lap = 104 m



1 lap = 96 m

8



1 lap = 65 m

9



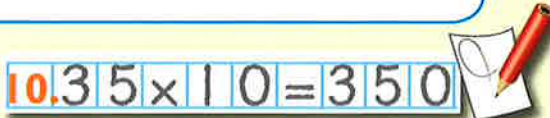
1 lap = 19 m

Write how far after 100 laps of the garden.



One kilometre is 1000 metres. If the hedgehogs are sponsored £5 per kilometre, which ones earn more than £20 after 100 laps?

Copy and complete.



1  $35 \times 10$

2  $47 \times 100$

3  $280 \times 10$

4  $7 \times 100$

5  $64 \times 10$

6  $68 \times 100$

7  $11 \times 100$

8  $49 \times 10$

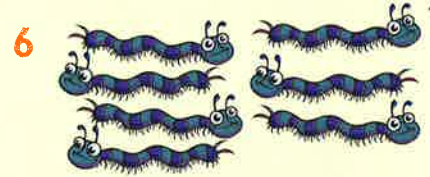
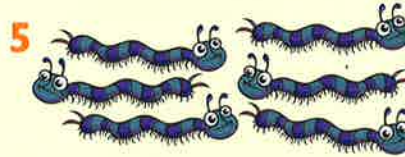
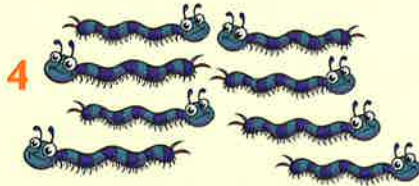
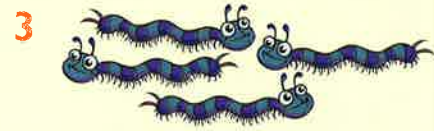
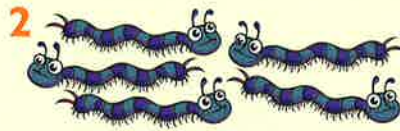
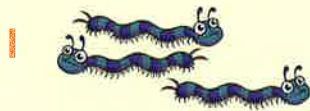
9  $360 \times 100$



# Multiplying by 10 and 100

These centipedes have 100 legs.  
How many legs in each set?

$$1. 3 \times 100 = 300$$



One minute is 60 seconds.  
These centipedes can run 10  
centimetres in 1 minute. How  
far can they run in:

$$7. 8 \times 10 \text{ cm} = 80 \text{ cm}$$

7 8 minutes

8 3 minutes

9 6 minutes

10 11 minutes

11 120 seconds

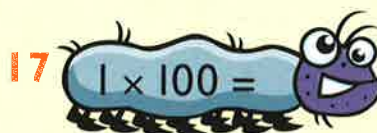
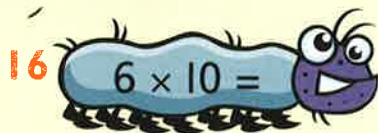
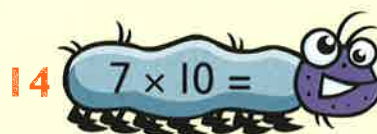
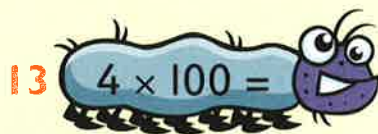
12 300 seconds



One hour is 60 minutes. How many centimetres  
will a centipede run in 1 hour?

Copy and complete.

$$13. 4 \times 100 = 400$$



# Multiplying

The kangaroos hold a long jump competition. One metre is 100 centimetres. Write how many centimetres each kangaroo jumps.

$$1. 3 \times 100 \text{ cm} = 300 \text{ cm}$$



3 metres

2



7 metres

3



5 metres



9 metres

5



6 metres

6



2 metres

How many more metres would it take for each kangaroo to reach 10 m?

Write how many beads.

$$7. 3 \times 20 = 60$$

8



9



10



11



12



I want to make necklaces using 10 beads of each colour. How many necklaces can I make, and how many beads will be left over?



## Dividing by 10 and 100

Write the number of pounds by dividing by 10 or 100.

$$1. 4800 \div 100 = \text{£}48$$



Your aunt offers you either 10p a day for a year or £3 a month for a year. Which is better?

Copy and complete.

$$10. 840 \div 10 = 84$$

11  $0840 \div 10 =$

12  $5600 \div 100 =$

13  $7600 \div 10 =$

14  $37900 \div 100 =$

15  $44800 \div 100 =$

16  $8500 \div 100 =$

17  $6950 \div 10 =$

18  $7480 \div 10 =$

19  $88000 \div 10 =$



Write the cost of the masks.

$$1. 3 \times 20 \text{ p} = 60 \text{ p}$$



20p



40p



30p



50p

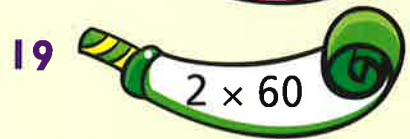
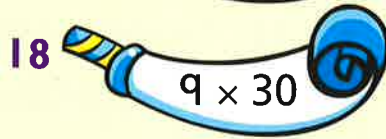
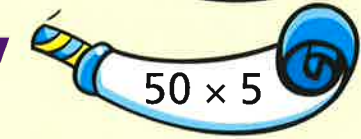
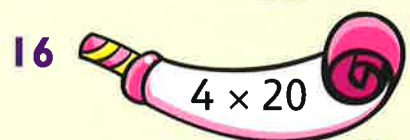
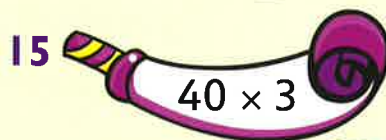
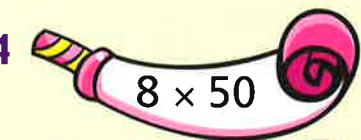
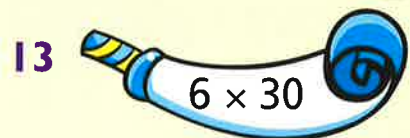
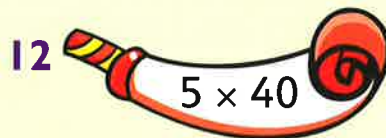
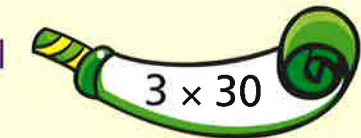
- |  |                      |
|--|----------------------|
| 1 3 clown masks                        | 2 2 teddy bear masks |
| 3 5 alien masks                        | 4 7 monkey masks     |
| 5 6 clown masks                        | 6 4 teddy bear masks |
| 7 3 alien masks                        | 8 9 monkey masks     |
| 9 10 alien masks and 4 monkey masks    |                      |
| 0 6 teddy bear masks and 5 clown masks |                      |



How many of each mask can you buy for £5?

Copy and complete.

$$11. 3 \times 30 = 90$$





Write three more multiplication facts for each calculation.

1.	$3 \times 6 = 18$		$30 \times 6 = 180$
	$3 \times 60 = 180$		$30 \times 60 = 1800$



1  $3 \times 6 =$

2  $4 \times 8 =$

3  $3 \times 7 =$

4  $4 \times 5 =$

5  $5 \times 7 =$

6  $4 \times 9 =$

7  $6 \times 5 =$

8  $6 \times 9 =$

9  $3 \times 4 =$

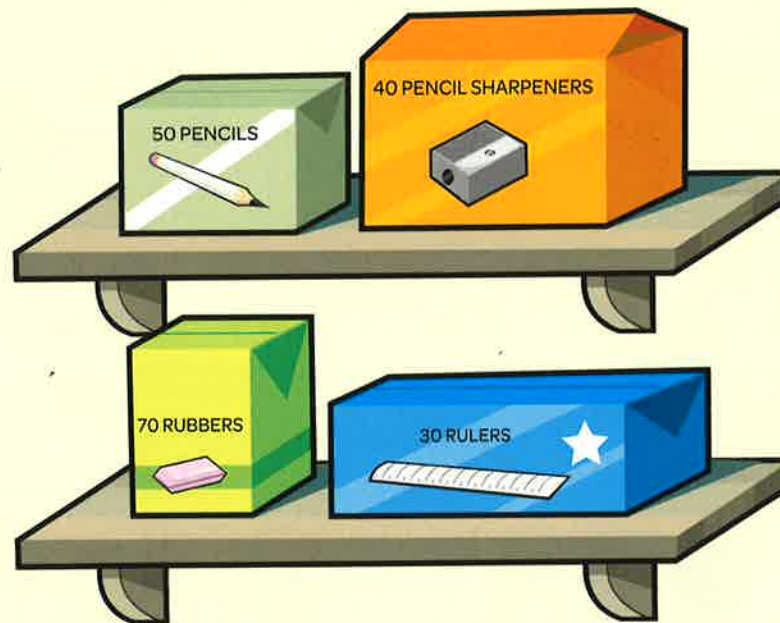
10  $8 \times 4 =$

11  $8 \times 7 =$

12  $8 \times 9 =$



How many multiplication calculations can you find that have the answer 240?



13 How many pencils in 40 boxes?

14 How many rubbers in 20 boxes?

15 How many rulers in 80 boxes?

16 How many pencil sharpeners in 90 boxes?



# Multiplication facts

Write two more multiplication facts for each calculation.

1.	$5 \times 6 = 30$																		
	$500 \times 6 = 3000$		$5 \times 600 = 3000$																



- |          |                |           |                |           |                |           |                |
|----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|
| <b>1</b> | $5 \times 6 =$ | <b>2</b>  | $5 \times 8 =$ | <b>3</b>  | $5 \times 7 =$ | <b>4</b>  | $4 \times 4 =$ |
| <b>5</b> | $4 \times 7 =$ | <b>6</b>  | $4 \times 9 =$ | <b>7</b>  | $6 \times 5 =$ | <b>8</b>  | $6 \times 7 =$ |
| <b>9</b> | $6 \times 9 =$ | <b>10</b> | $9 \times 5 =$ | <b>11</b> | $9 \times 4 =$ | <b>12</b> | $9 \times 9 =$ |



How many multiplication calculations can you find that have the answer 2400? What about 4800? What patterns can you see?

- 13** Ella's mum is saving up for a car.  
Each week she saves £40.  
She saves for 50 weeks.  
How much money has she saved?



- 14** A coal lorry has 70 bags of coal.  
Each bag weighs 30 kg.  
How many kg of coal are there?

- 15** Jamal is raising money for charity.  
His target is £4800. Does he need to raise  
£40 a week for 20 weeks,  
£50 a week for 30 weeks  
or £80 a week for 60 weeks?



I can use my knowledge of table facts and of multiplying by 100 to make new multiplication facts

Copy and complete.

$$1.33 \times 4 = 132$$



1  $33 \times 4 = \square$

2  $32 \times 5 = \square$

3  $21 \times 9 = \square$

4  $64 \times 5 = \square$

5  $47 \times 2 = \square$

6  $13 \times 5 = \square$

7  $48 \times 9 = \square$

8  $21 \times 4 = \square$

9  $15 \times 4 = \square$

10  $73 \times 4 = \square$

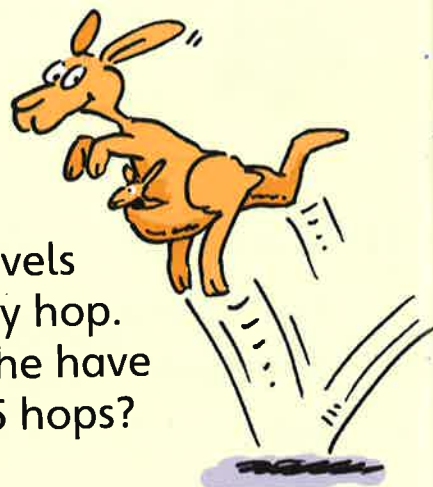
11  $40 \times 9 = \square$

12  $27 \times 9 = \square$

- 13 Biscuits cost 17p.  
How much change will you have from £1 if you buy 5 biscuits?



- 14 Kevin the kangaroo travels 6m with every hop.  
How far will he have gone after 25 hops?



- 15 Raffle tickets cost 30p each.  
A book of 5 tickets costs £1.35. How much do you save by buying the book?



- 16 3 times a number is half of  $5 \times 6$ . What is the number?



$\square \times \square \times \square = 24$ . What could the three numbers be? (Two might be the same.)



Multiply these numbers by 2, by splitting them into tens and units.

1.	2	×	10	=	20	2	×	3	=	6	20	+	6	=	26
	2	×	13	=	26										



- |    |              |              |              |
|----|--------------|--------------|--------------|
| 13 | <b>2</b> 24  | <b>3</b> 31  | <b>4</b> 42  |
| 51 | <b>6</b> 47  | <b>7</b> 18  | <b>8</b> 36  |
| 54 | <b>10</b> 58 | <b>11</b> 68 | <b>12</b> 78 |



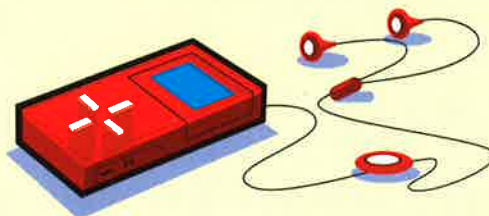
What is  $2 \times 75$ ?  
Use this to calculate  $4 \times 75$  and  $8 \times 75$ .  
What about  $16 \times 75$ ?

- 3** A bag of apples costs 78p.  
How much change will you get from £2 if you buy 2 bags of apples?



- 4** Cameron is cooking an omelette. The recipe asks for 54 g of butter and 67 g of cheese. He doubles the recipe. How much butter and cheese should he use?

- 5** An MP3 player is on sale at half price for £57. How much would it normally cost?





- 1 Naresh collects 10p coins.  
He has saved £7.80.  
How many coins is this?

- 2 Sally gets £5 pocket money  
every week. There are 52 weeks  
in a year. How much does this  
cost her parents every year?



Invent a rule for these, starting by multiplying by 10 and 100:

- 3 Multiplying by 50      4 Multiplying by 200  
5 Multiplying by 11      6 Multiplying by 9

Try the rules on these numbers:

43

18

160

Copy and complete.

$$7. 73 \times 10 = 730$$

7  $73 \times 10 =$

8  $42 \times 100 =$

9  $39 \times 100 =$

10  $860 \times 10 =$

11  $47 \times 5 =$

12  $96 \times 20 =$

13  $28 \times 50 =$

14  $86 \times 20 =$

15  $32 \times 200 =$

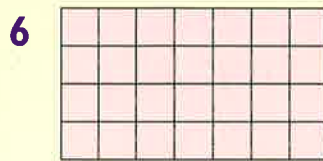
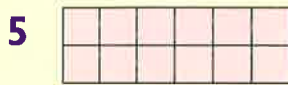
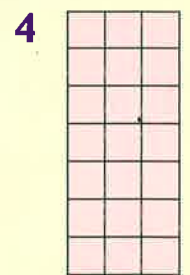
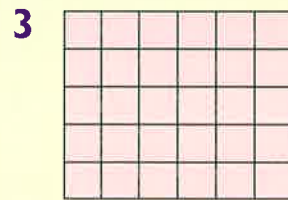
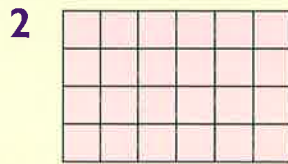
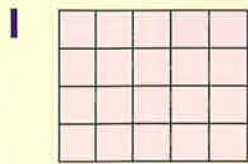
16  $38 \times 50 =$



# Dividing

Write two divisions to match each set of tiles.

1.	20	÷	5	=	4
	20	÷	4	=	5



Draw some sets of tiles from which only one division can be written.

Class 4 has 27 children, who need to be split into teams. Write how many teams can be made, and how many children are left over.

7.	27	÷	3	=	9	teams exactly
----	----	---	---	---	---	---------------



teams of 3



teams of 4



teams of 2



teams of 10



teams of 5



teams of 6



Find different ways of splitting 24 children into teams of equal size, with no children left over.



I can use table facts to help me work out division calculations



Use each list to help you complete these divisions with remainders.

$$1. \quad 15 \div 4 = 3 \text{ r } 3$$

4    8    12    16    20    24    28    32    36    40

1  $15 \div 4 =$       2  $29 \div 4 =$       3  $38 \div 4 =$       4  $22 \div 4 =$

5    10    15    20    25    30    35    40    45    50

5  $23 \div 5 =$       6  $18 \div 5 =$       7  $44 \div 5 =$       8  $36 \div 5 =$



The list for 4s and the list for 5s have two numbers in common: 20 and 40. Find some other pairs of lists that have numbers in common.

How many chair lifts are needed for:

$$9. \quad 13 \div 3 = 4 \text{ r } 1$$

5 chairs

9 13 people    10 22 people    11 28 people

How many cable cars are needed for:

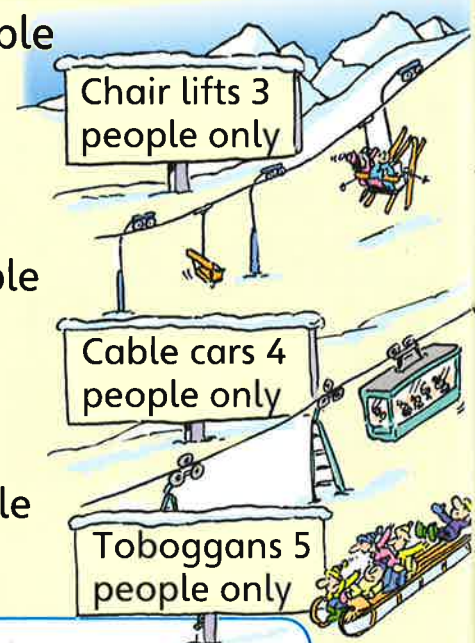
12 21 people    13 43 people    14 82 people

How many toboggans are needed for:

15 17 people    16 28 people    17 61 people



What number of people can fit exactly into chair lifts, into cable cars and into toboggans?



True or false?

1. true



1  $18 \div 4 = 4 \text{ r } 2$

2  $21 \div 5 = 4 \text{ r } 1$

3  $36 \div 10 = 6 \text{ r } 3$

4  $25 \div 3 = 8 \text{ r } 2$

5  $23 \div 2 = 11 \text{ r } 1$

6  $38 \div 4 = 8 \text{ r } 2$

7  $26 \div 3 = 8 \text{ r } 2$

8  $43 \div 5 = 9 \text{ r } 3$

9  $25 \div 4 = 6 \text{ r } 1$

Rewrite the false ones with the correct answer.

- 10 Five friends go for a burger. The bill comes to £16. If each person paid with £5, how much change would they each receive?



- 11 Ashok tidies his bricks by storing them in piles of 4. He has 38 bricks. How many piles does he make?



- 12 Jenny eats 4 slices of toast every day. A loaf has 17 slices. How many days will they last?



- 13 Mel is saving to buy 5p stickers. She has enough money to buy 7 stickers and have 3p left over. How much has she saved?



7 gives a remainder of 1 when divided by both 2 and 3.  
 $7 \div 2 = 3 \text{ r } 1$      $7 \div 3 = 2 \text{ r } 1$

Find other numbers that also give a remainder of 1 when divided by both 2 and 3.

Find numbers that give a remainder of 1 when divided by both 2 and 5.



I can answer division questions with remainders

# Dividing 2-digit numbers by 5



Dividing by 5 is the same as working out how many 5s are in a number.

I can work out how many 5s are in a number by thinking about how many 10s are in it and doubling this.

87 has eight 10s but it has a remainder of 7 which can make another group of 5 with 2 left over. 87 is seventeen 5s remainder 2.

Number	How many 10s?	How many 5s?	Another group?	Answer
87	8 r 7	16 r 7	yes	17 r 2

Divide these by 5

$$1. 89 \div 5 = 17 \text{ r } 4$$

1 89

2 76

3 54

4 66

5 94

6 99

7 102

8 127



Write a different calculation to check each of your division answers.

- 9 If Donald shares his sweets between 5 people, there are 3 sweets left over. If he shares them between 2 people, there is 1 sweet left over. If he shares them between 4 people, there are 3 sweets left over. Donald has more than 50 sweets. How many could he have?





- 1 Ian bought 4 apples at 23p each and 3 oranges at 32p each. How much change did he have from £5?



- 2 The bus fare to work is 24p each way. What is the cost for a 5-day week? How much cheaper is a travel pass, costing £1.85 a week?

- 3 Tickets for the match cost £34 for adults and £18 for children. What is the cost for a family of 4 adults and 3 children?



Change the numbers in the questions to make them very easy to solve.

Find how to arrange the digits like this:  $\square \times \square \square$  to make these answers.

4  $\begin{matrix} & 4 & \\ 3 & & 5 \end{matrix} \longrightarrow 215$

5  $\begin{matrix} & 6 & 7 \\ & 2 & \end{matrix} \longrightarrow 182$

6  $\begin{matrix} & 8 & \\ 4 & & 6 \end{matrix} \longrightarrow 288$

7  $\begin{matrix} & 5 & 8 \\ & 2 & \end{matrix} \longrightarrow 140$



Use number cards 0–9.

Choose three to make a multiplication like this:

$$\square \square \times \square$$

Using the cards, write down five easy calculations and five hard calculations. Choose one from each group and explain why they are easy or hard.





Rugby shirt £37

Tennis racket £64



Trainers £42

Swimming costume £36



Write the cost. Before you start, explain how you will find each answer.

- 1 6 rugby shirts
- 2 8 tennis rackets
- 3 2 pairs of trainers
- 4 3 swimming costumes

Solve these questions. Explain how you will find each answer.

- 5 Eva buys 9 tennis balls. She spends £36.  
How much does one tennis ball cost?



- 6 Jake, Rohan and Ayesha want to buy a treadmill at £126. How much money must they each give?
- 7 6 friends share 86 ping pong balls between them. How many ping pong balls do they each get and how many are left over?



Write three different multiplying or dividing word problems so that:

- Your partner can answer the first question without any working out.
- Your partner can solve the second question mentally, writing notes to help them.
- Your partner needs to write out the answer to the third question in full.

