

Challenge slides.

Step for depth

To multiply a 2-digit number by a 1-digit number (with exchange)

Monday

Independent Practice:

- 2.** Look at these calculations. For each one say whether it is correct or incorrect. Find the correct answer for any that are wrong. Can you explain the mistake?

a.

	3	3
x		4
<hr/>		
1	3	2

b.

	3	5
x		3
<hr/>		
9	1	5

c.

	4	2
x		6
<hr/>		
2	4	2

d.

	5	3
x		2
<hr/>		
1	0	6

To multiply a 2-digit number by a 1-digit number (with exchange)

Guided Practice:

The mathstronaut are playing game, 'How close can you get to 100?'. They both start with 23 and each roll a dice to complete the multiplication.

Who will win the game?



	2	3
x		



	2	3
x		

Mathstronaut 2 wins.

Mathstronaut 1 made $23 \times 5 = 115$

Mathstronaut 2

made $23 \times 4 = 92$

92 is closer to 100 than 115.

Answers

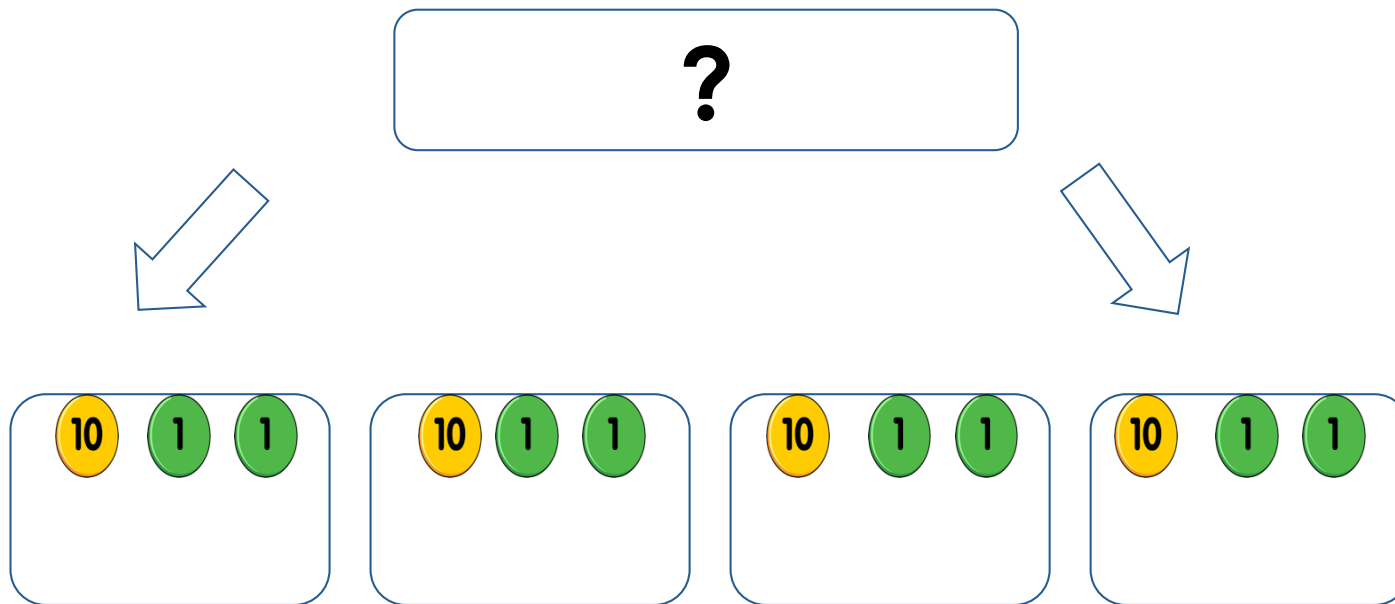
To multiply a 2-digit number by a 1-digit number (with exchange)

Tuesday

I am thinking of a number. When I divide my number by ⁴4, the answer is 12.

⁸
What is my number?

Use place value counters to help you.



To multiply a 2-digit number by a 1-digit number (with exchange)

Independent Practice:

- 3.** Use place value counters to help you work out the mystery numbers.
- a.** I'm thinking of a number, when I divide it by 3 the answer is 12. What is my number?
 - b.** I'm thinking of a number, when I divide it by 2 the answer is 24. What is my number?
 - c.** I'm thinking of a number, when I divide it by 4 the answer is 11. What is my number?
 - d.** I'm thinking of a number, when I divide it by 3 the answer is 32. What is my number?

To multiply a 2-digit number by a 1-digit number (with exchange)

Wednesday

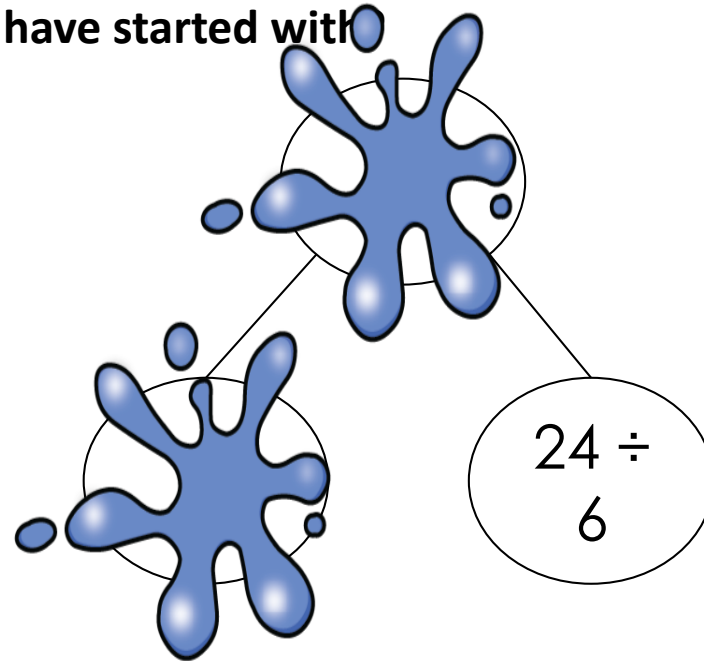
To multiply a 2-digit number by a 1-digit number (with exchange)

Wednesday

The mathstronaut is partitioning to help her divide a 2-digit number by 6.

She spilt paint on her work.

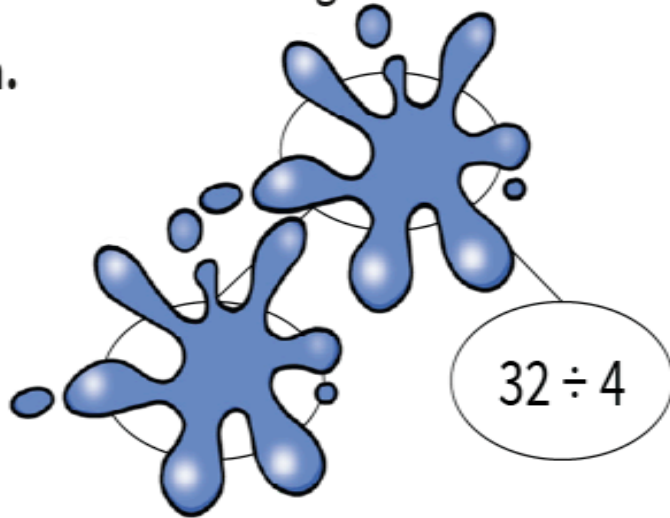
What number could she have started with?



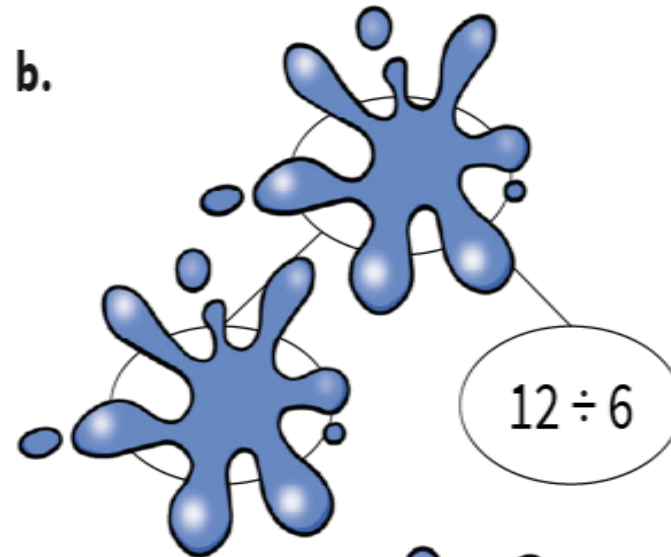
To multiply a 2-digit number by a 1-digit number (with exchange)

3. Find the starting number:

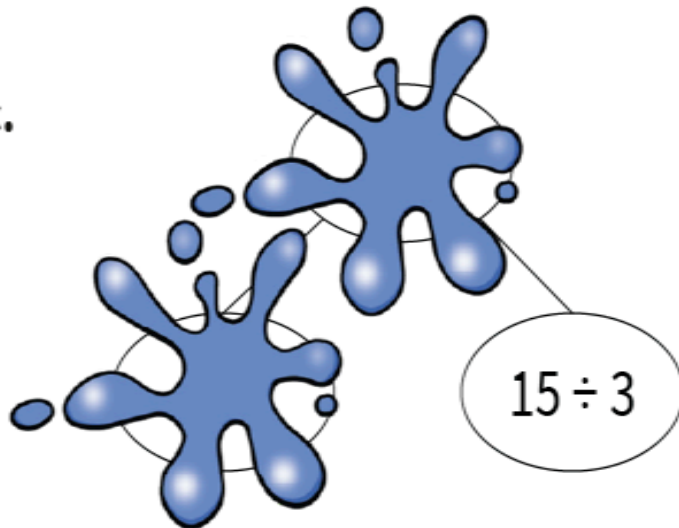
a.



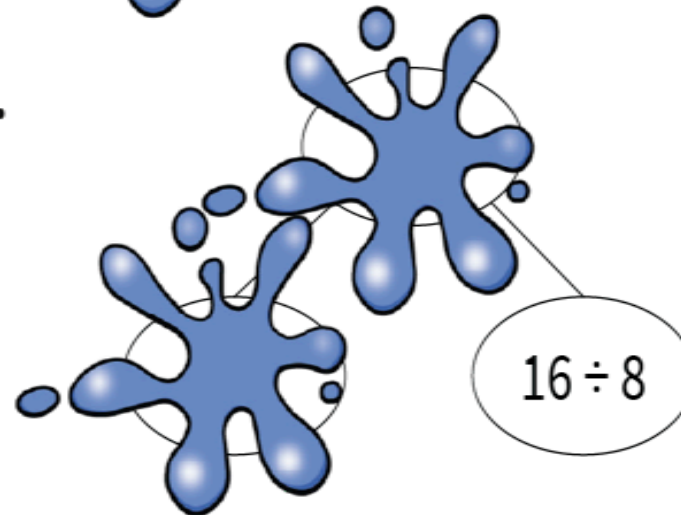
b.



c.



d.



To multiply a 2-digit number by a 1-digit number (with exchange)

Independent Practice:

2. Use a number line and repeated subtraction to solve:

a. $34 \div 4 =$

b. $17 \div 6 =$

c. $20 \div 8 =$

d. $23 \div 6 =$

e. $43 \div 7 =$

f. $57 \div 9 =$

To multiply a 2-digit number by a 1-digit number (with exchange)

Thursday

- a.** The mathstronaut has 17 cards. He sorts them into piles and has 2 remaining. How many could be in each pile?
- b.** The mathstronaut has between 20 and 30 stickers. He sorts them into 4 piles and has 3 remaining. How many stickers might he have?
- c.** Two mathstronauts have 50 apples altogether. One puts them into bags of 5 and has 4 left over. The other puts them into bags of 6 and has 2 remaining. How many apples might they have each?
- d.** A teacher has 22 students in the class. She puts them into groups and there are 2 children remaining. How many groups may she have split the class into, with how many in each group?

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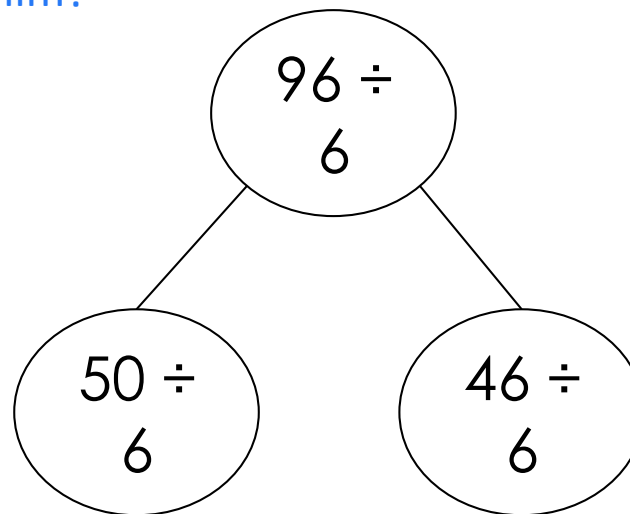
Friday

Let's Reflect:

The mathstronaut is not able to solve this division problem.

Where has he made a mistake?

What advice would you give him?



To multiply a 2-digit number by a 1-digit number (with exchange)

Let's Reflect:

The mathstronaut is thinking...



All I have to do to work out whether there will be a remainder is look at the two numbers. If the first number is a multiple of the second, there will be no remainder.

Is the astronaut correct?