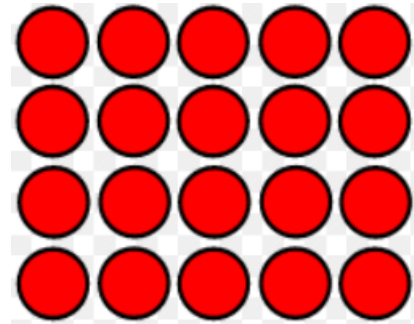
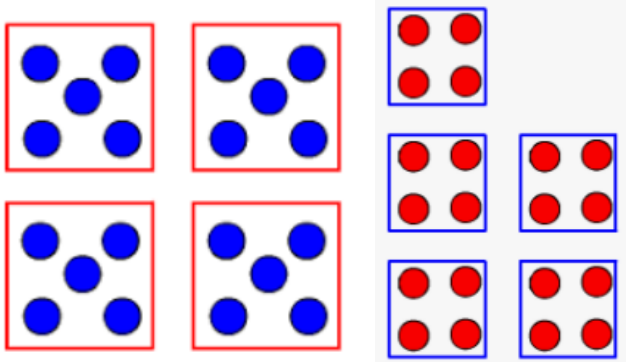




23.11.2020

Calculating the inverse



___ x ___ = ___

___ x ___ = ___

___ x ___ = ___

___ x ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

Tick the number sentences that the image shows.



$12 \div 3 = 4$

$3 = 12 \div 4$

$12 = 4 \times 3$

$3 \times 12 = 4$

$3 \div 4 = 12$

$3 \times 4 = 12$

'Write two division equations using this multiplication equation.'

$15 \times 4 = 60$

___ ÷ ___ = ___

___ ÷ ___ = ___



23.11.2020

Calculating the inverse - Challenge

'Draw lines to connect each multiplication equation to a matching division equation.'

$$15 = 3 \times 5$$

$$24 \div 6 = 4$$

$$24 = 8 \times 3$$

$$0 \div 7 = 0$$

$$22 = 2 \times 11$$

$$15 \div 3 = 5$$

$$0 = 7 \times 0$$

$$7 \div 7 = 1$$

$$24 = 12 \times 2$$

$$11 = 22 \div 2$$

$$7 = 7 \times 1$$

$$24 \div 8 = 3$$

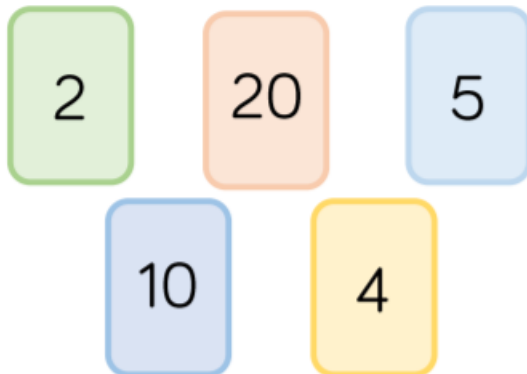
$$4 \times 6 = 24$$

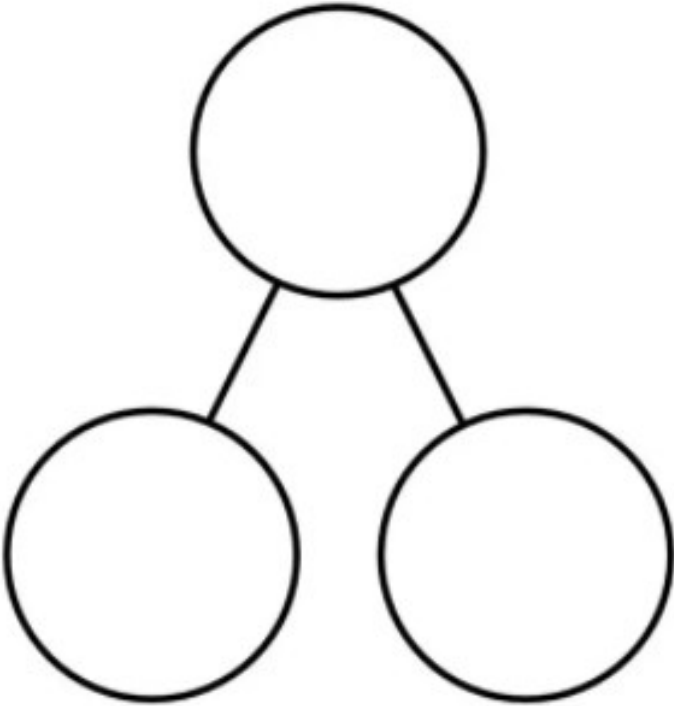
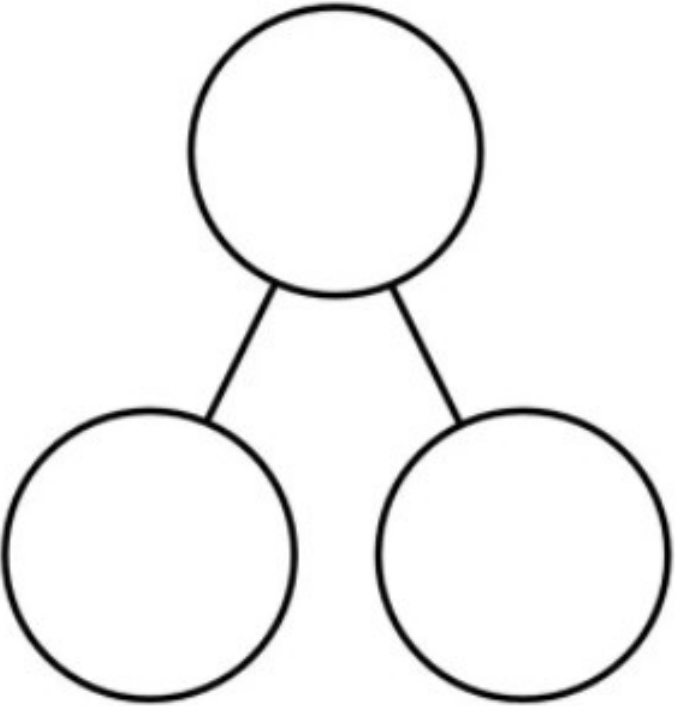
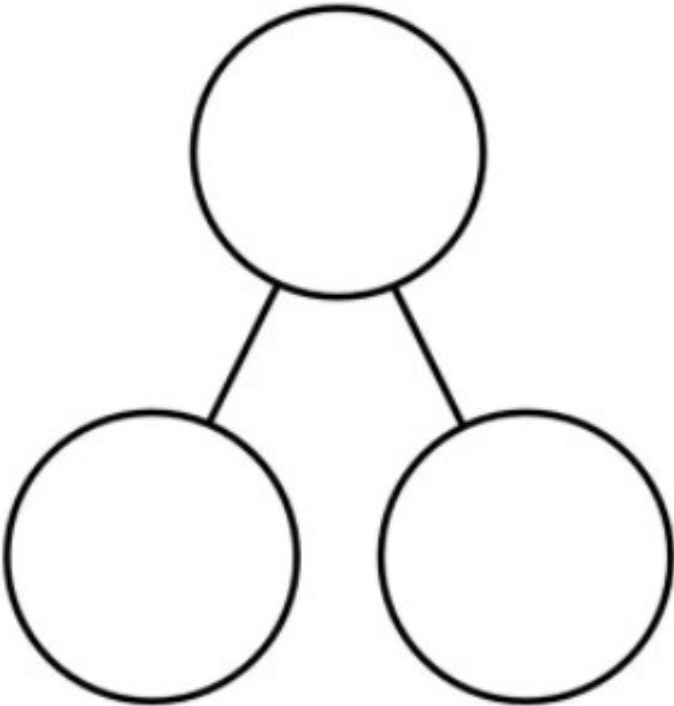
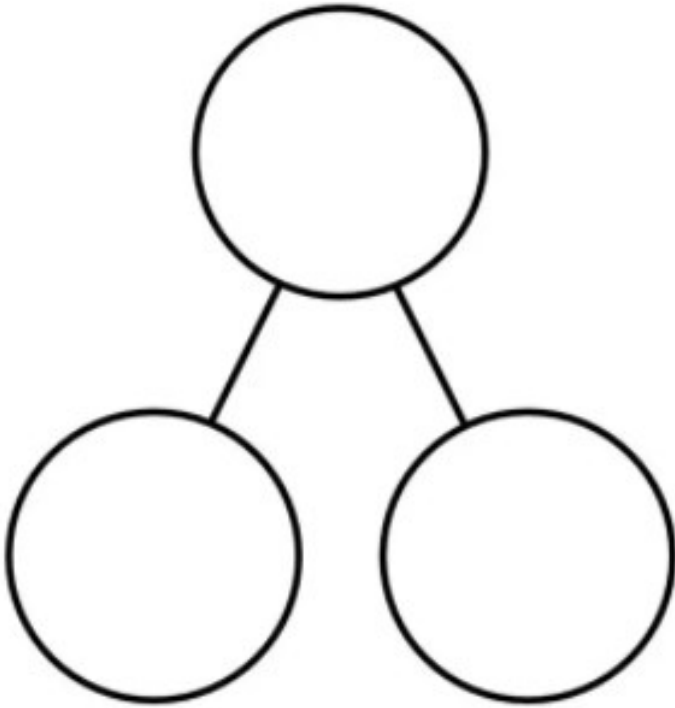
$$2 = 24 \div 12$$

Use the number cards to make multiplication and division sentences.

How many can you make?

Journal this in your book. How do you know you have them all?







25.11.2020

Using the distributive law

$__ \times __ + __ \times __ = __ \times __$ $__ \times __ - __ \times __ = __ \times __$

'Use counters to represent the parts. For each solution you find, write three equations.'

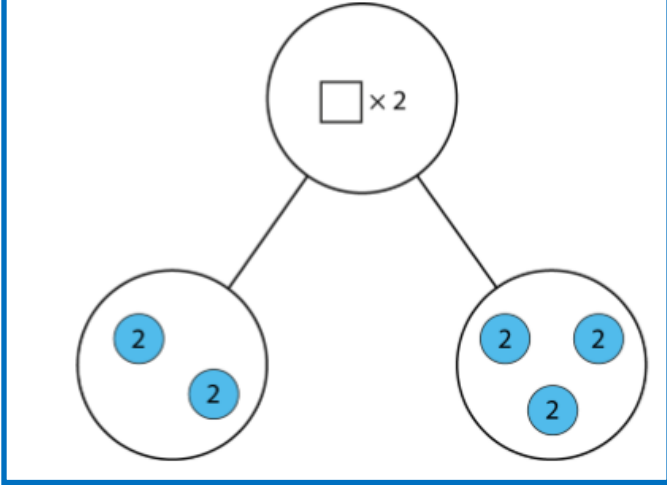
$8 \times 2 = \square \times \square + \square \times \square$
 $\square \times \square = 8 \times 2 - \square \times \square$
 $\square \times \square = 8 \times 2 - \square \times \square$



25.11.2020

Using the distributive law

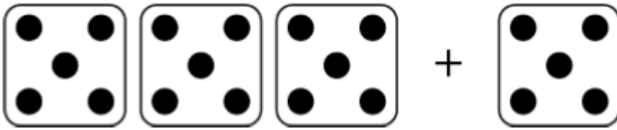
Fill in the missing number.



• Write an equation to represent Eloise's dice rolls.

Eloise rolls 3 fives.

Then she rolls 1 more five.



___ x ___ + ___ x ___ = ___ x ___

• Write an equation to represent the remaining number of legs after two of the spiders have crawled away.



___ x ___ - ___ x ___ = ___ x ___

Does this show 4×3 ?	✓ or ✗
<p style="text-align: center;">$3 \times 3 + 1 \times 3$</p>	
<p style="text-align: center;">$2 \times 4 + 4 \times 1$</p>	



26.11.2020

Applying the distributive law

'Fill in the missing numbers in these ratio charts.'

	× 2	× 5	× 7
0	0	0	0
1	2	5	7
2	4	10	14
3	6	15	21
4	8	20	28
5	10	25	35
6	12	30	42
7	14	35	
8	16	40	
9	18	45	
10	20	50	
11	22	55	
12	24	60	

	× 5	× 1	× 6
0	0	0	0
1	5	1	
2			
3	15		
		4	
5			30
6	30		
7		7	
8			
9			54
10			60
11			
	60		

Use < > = or numbers to fill in the missing boxes.

$$3 \times 7 \bigcirc 3 \times 2 + 3 \times 5$$

$$4 \times 7 \bigcirc 4 \times 5 + 4 \times 2$$

$$4 \times 7 \bigcirc 4 \times 6 + 4 \times 1$$

$$5 \times 7 > \square \times 2 + \square \times 5$$

$$6 \times 7 < 5 \times \square + 5 \times \square$$

$$8 \times 6 \bigcirc 8 \times 5 + 8 \times 1$$

$$8 \times 6 \bigcirc 8 \times 4 + 8 \times 1$$

$$8 \times 6 \bigcirc 8 \times 4 + 8 \times 2$$

$$8 \times 6 \bigcirc 8 \times 4 + 8 \times 3$$

$$8 \times 6 \bigcirc 8 \times 3 + 8 \times 3$$



26.11.2020

Applying the distributive law—CHALLENGE

- 'Fill in the missing number.'

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

- 'Evie writes this in her book:'

$$3 = 2 + 1$$

so

$$\begin{aligned} 9 \times 3 &= 9 \times 2 + 9 \times 1 \\ &= 18 + 9 \\ &= 27 \end{aligned}$$

'Is her calculation correct?'

'Some children are calculating seven times nine.'

Child A

$$\begin{aligned} 7 \times 9 &= 7 \times 10 - 7 \times 1 \\ &= 70 - 7 \\ &= 63 \end{aligned}$$

Child B

$$\begin{aligned} 7 \times 9 &= 9 \times 7 \\ 9 \times 7 &= 9 \times 5 + 9 \times 2 \\ &= 45 + 18 \\ &= 63 \end{aligned}$$

Child C

$$\begin{aligned} 7 \times 9 &= 7 \times 10 - 7 \\ &= 70 - 7 \\ &= 63 \end{aligned}$$

'Who is correct? Whose method do you prefer? Why?'



27.11.2020

Applying the distributive law

'Jemima saved £6 a week for five weeks, then £4 a week for the next five weeks. How much did she save in total?'



My teacher said I can use the distributive law when solving this. I don't know how. Can someone explain this to me?



27.11.2020

Applying the distributive law

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