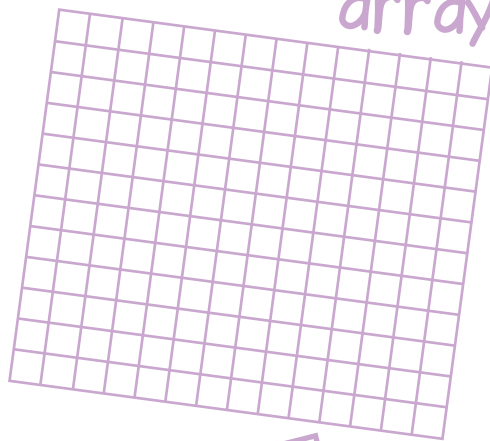


Draw it

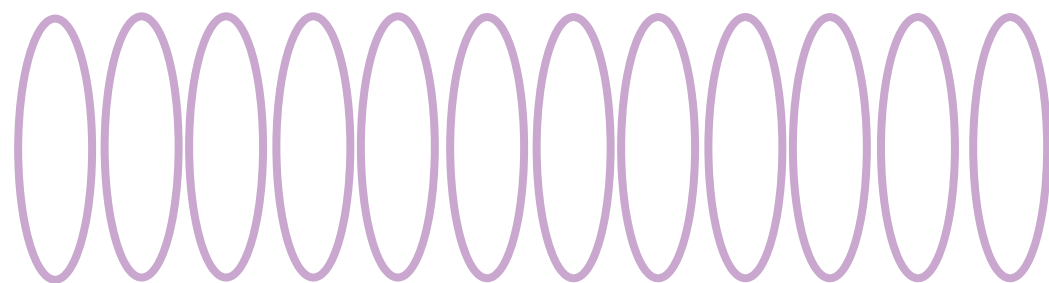
bar



array



groups



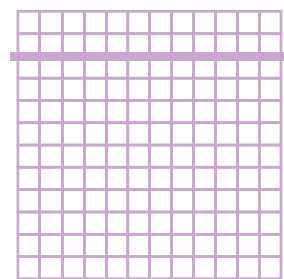
number line



scaling



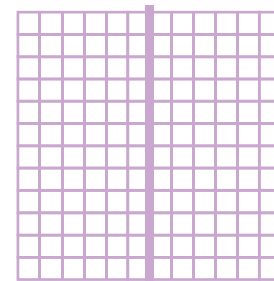
Dissect it



$$12 \times 12 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

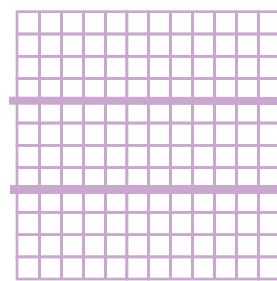
$$= \square$$



$$12 \times 12 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

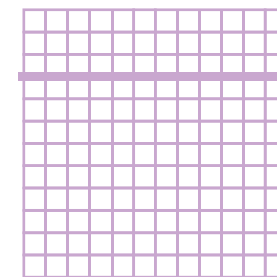
$$= \square$$



$$12 \times 12 = 12 \times \square + 12 \times \square + 12 \times \square$$

$$= \square + \square + \square$$

$$= \square$$



$$12 \times 12 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$



If I know $12 \times 12 = 144$ then I also know...

$$\square \times \square = 144$$

___ multiplied by ___ is ___

$$144 = \square \times \square$$

___ groups of ___ is ___

$$\square \div \square = \square$$

___ shared equally between 12 is ___ each

$$\square = \square \div \square$$

___ put into groups of 12 is ___ groups of 12

___ is a factor of ___

___ is a multiple of ___



$$120 = \square \div 12$$

$$1440 = \square \times 12$$

$$12 = \square \div 120$$

$$\square \times 12 = 144$$

$$\frac{1}{12} \text{ of } \square = 12$$

A snakes and ladders board has 12 rows of 12 squares. How many squares are on the board?

Each minibus can carry 12 people. How many minibuses are needed for 144 people?

Seb jogs the same distance each month. If he jogs 1440km in a year how far does he jog **each** month?

How many sides are there in total on twelve dodecagons?(12 sided shapes)



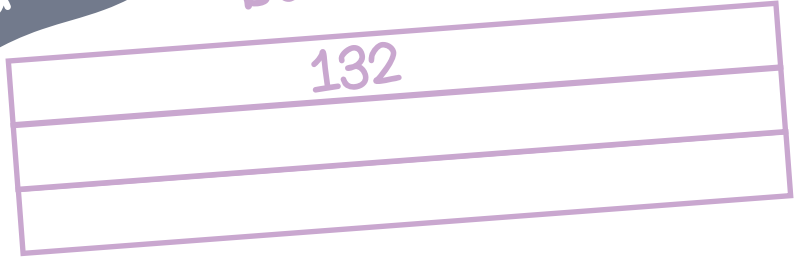
True or false?
 12×12 is double 6×6

Derive it

Deepen it

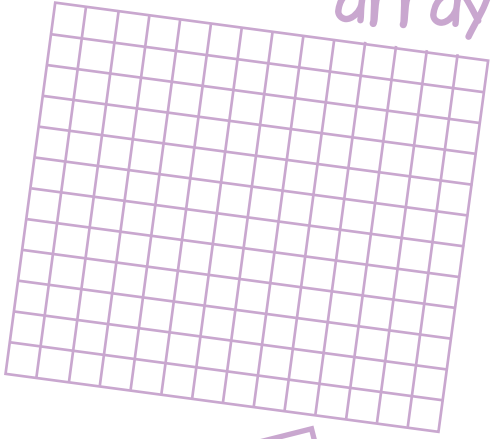
Draw it

bar

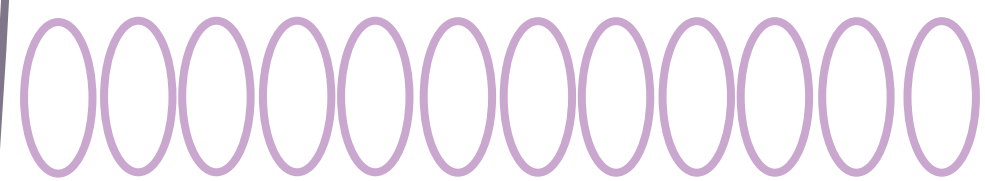
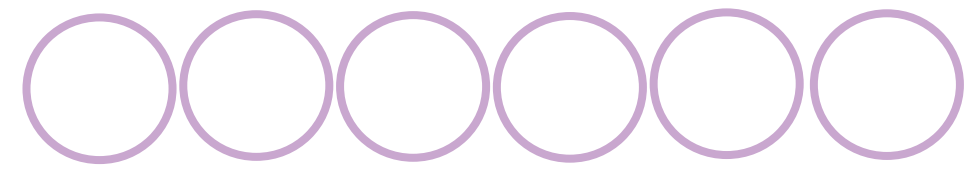


132

array



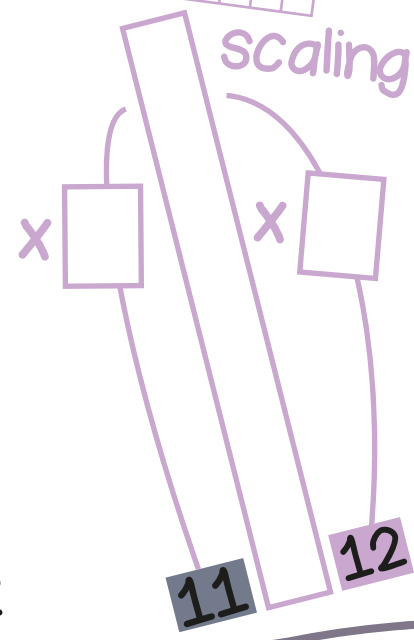
groups



number line

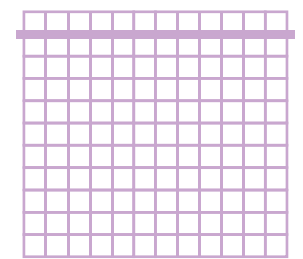
0

132



scaling

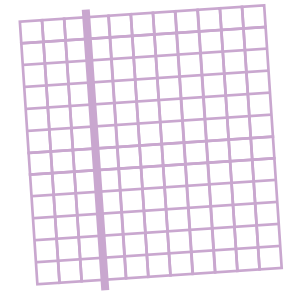
Dissect it



$$12 \times 11 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

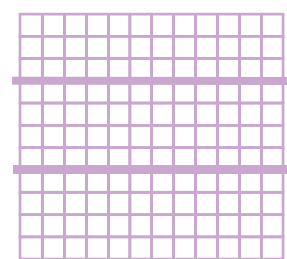
$$= \square$$



$$12 \times 11 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

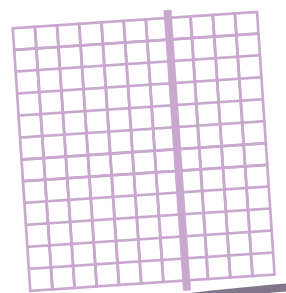
$$= \square$$



$$12 \times 11 = 12 \times \square + 12 \times \square + 12 \times \square$$

$$= \square + \square + \square$$

$$= \square$$



$$12 \times 11 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$



If I know $12 \times 11 = 132$ then I also know...

$$\square \times \square = 132$$

$$132 = \square \times \square$$

$$132 = \square \times \square$$

$$\square \div \square = \square$$

$$\square = \square \div \square$$

___ multiplied by ___ is ___

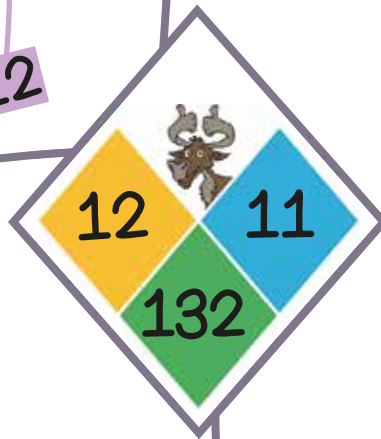
___ groups of ___ is ___

___ shared equally between 12 is ___ each

___ put into groups of 12 is ___ groups of 12

___ and ___ are factors of ___

___ is a multiple of ___ and ___



$$110 = \square \div 12$$

$$1320 = \square \times 12$$

$$11 = \square \div 120$$

$$\square \times 12 = 132$$

$$\frac{1}{12} \text{ of } \square = 11$$

There are twelve football teams of 11 players each. How many players are there **in total**?

Rob drives 13200 miles in a year. How many miles does he drive in a month if **each** month is the same?

Each packet of seeds weighs 120g. How many bags can be filled with 1320g of seeds?

A baker buys 11 boxes of a dozen eggs. How many eggs does he buy?



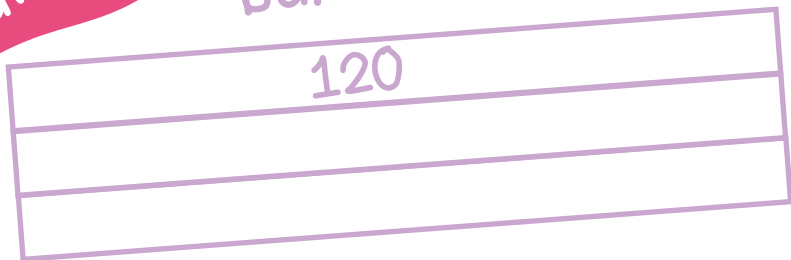
True or false?
 $132 = 12 \times 10 + 12$

Derive it

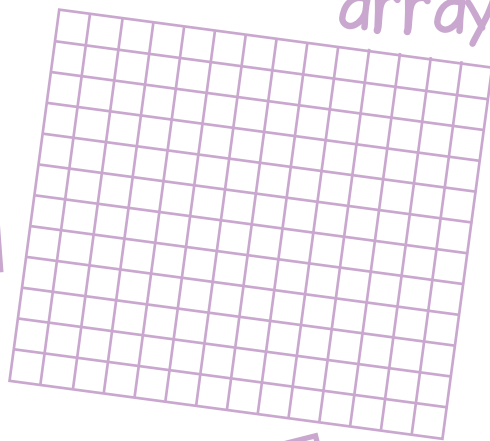
Deepen it

Draw it

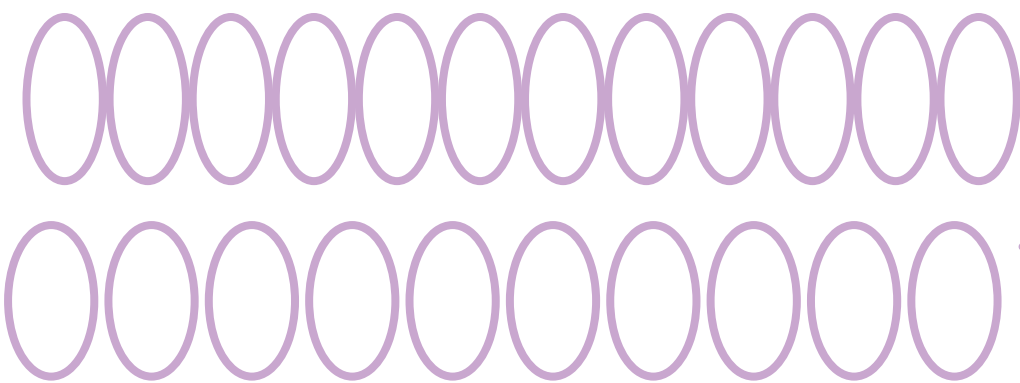
bar



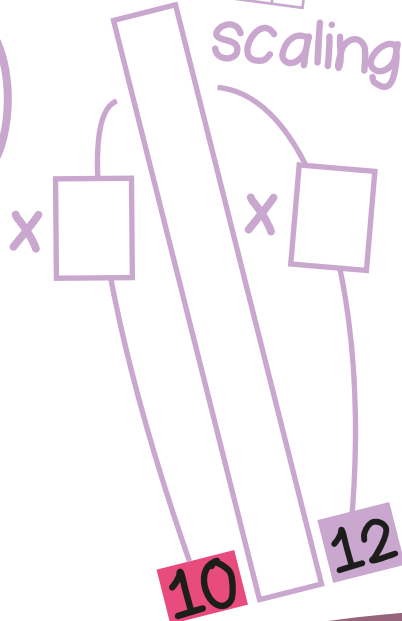
array



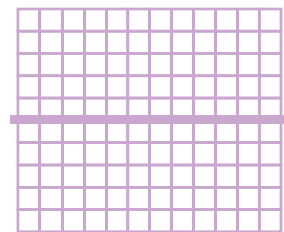
groups



number line



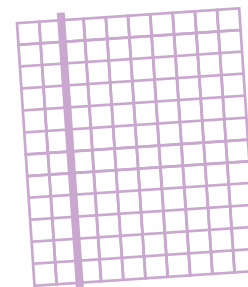
Dissect it



$$12 \times 10 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

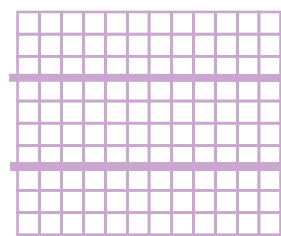
$$= \square$$



$$12 \times 10 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

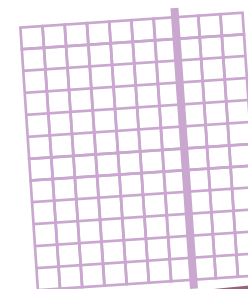
$$= \square$$



$$12 \times 10 = 12 \times \square + 12 \times \square + 12 \times \square$$

$$= \square + \square + \square$$

$$= \square$$



$$12 \times 10 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$



If I know $12 \times 10 = 120$ then I also know...

$$\square \times \square = 120$$

$$120 = \square \times \square$$

$$120 = \square \times \square$$

$$\square \div \square = \square$$

$$\square = \square \div \square$$

___ multiplied by ___ is ___

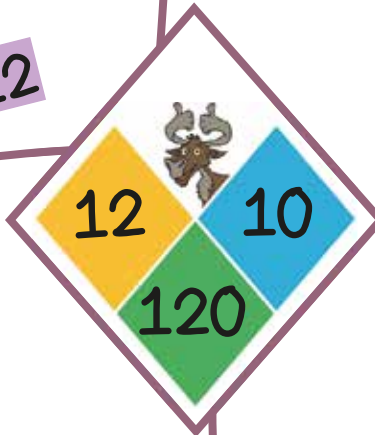
___ groups of ___ is ___

___ shared equally between 12 is ___ each

___ put into groups of 12 is ___ groups of 12

___ and ___ are factors of ___

___ is a multiple of ___ and ___



$$100 = \square \div 12$$

$$1200 = \square \times 12$$

$$10 = \square \div 120$$

$$\square \times 12 = 120$$

$$\frac{1}{12} \text{ of } \square = 10$$



$1200 \div 12 = 10$
True or false?

Terry makes ten dozen cupcakes. How many cupcakes does he make **in total**?

A city farm has 100 school children visit **each** month for a year. How many children visit **in total**?

Henry buys twelve tickets for £10 **each**. How much do the tickets cost **altogether**?

Andy sells bags of sweets for £1.20 **each**. He gets £12. How many bags did he sell?

Derive it

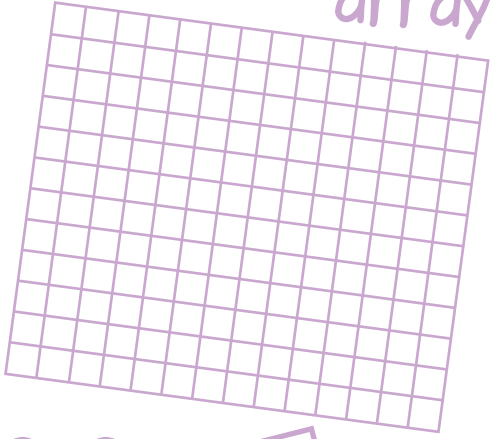
Deepen it

Draw it

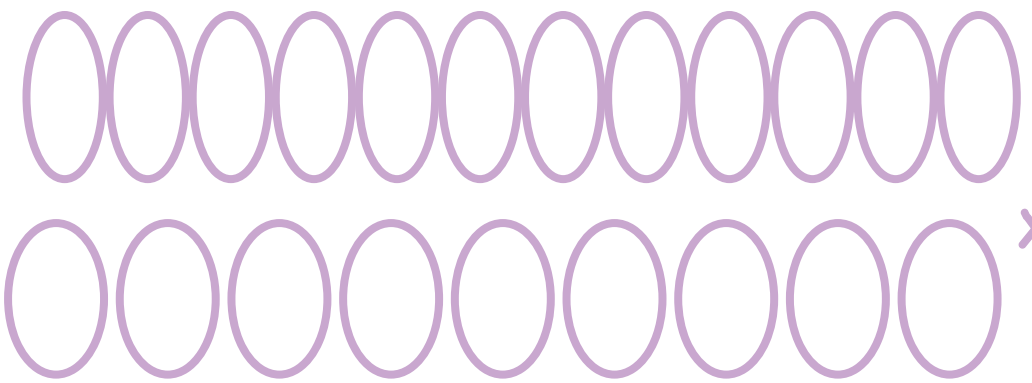
bar



array



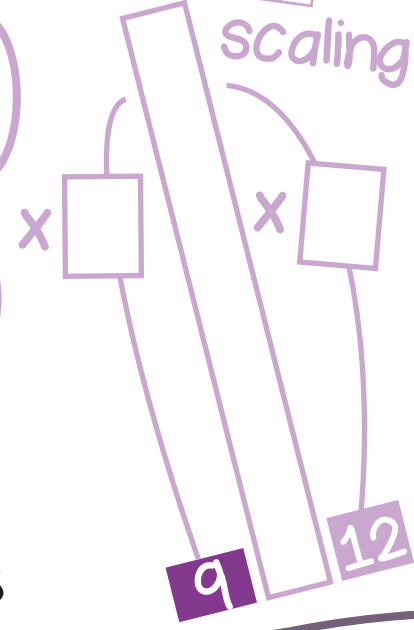
groups



number line



scaling



Dissect it

$$12 \times 9 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$

$$12 \times 9 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$

$$12 \times 9 = 12 \times \square + 12 \times \square + 12 \times \square$$

$$= \square + \square + \square$$

$$= \square$$

$$12 \times 9 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$



If I know $12 \times 9 = 108$ then I also know...

$$\square \times \square = 108$$

$$108 = \square \times \square$$

$$108 = \square \times \square$$

$$\square \div \square = \square$$

$$\square = \square \div \square$$

___ multiplied by ___ is ___

___ groups of ___ is ___

___ shared equally between 12 is ___ each

___ put into groups of 12 is ___ groups of 12

___ and ___ are factors of ___

___ is a multiple of ___ and ___

$$90 = \square \div 12$$

$$10,800 = \square \times 12$$

$$12 = \square \div 90$$

$$\square \times 12 = 1080$$

$$\frac{1}{12} \text{ of } \square = 9$$

A gardener plants 12 bulbs in **each** of 9 pots. How many bulbs does he plant **in total**?

108 chairs are arranged in 12 equal rows. How many chairs are there in each row?

Wendy saves £90 per month for a year. How much does she save **altogether**?

A grandpa gives **each** of his grandchildren £12. He gives £108 in total. How many grandchildren?



$1008 \div 12 = 90$
True or false?

Derive it

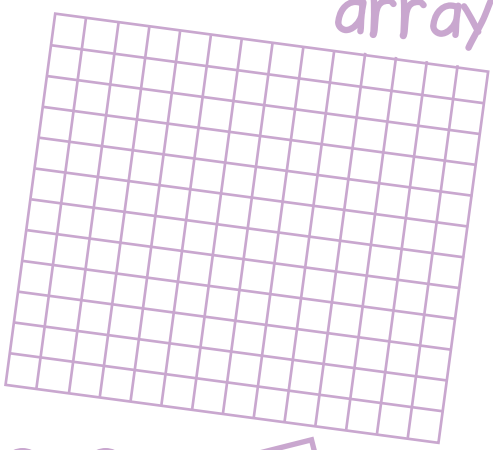
Deepen it

Draw it

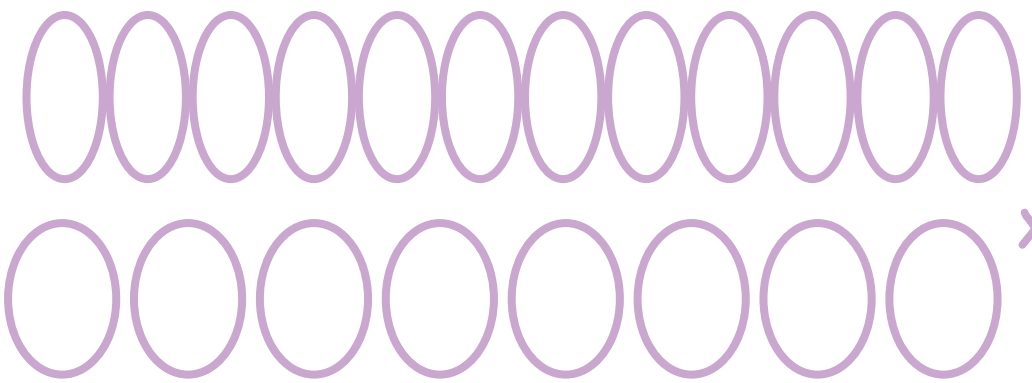
bar



array



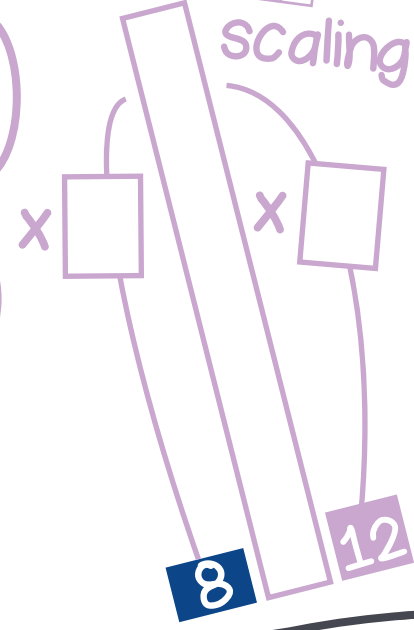
groups



number line



scaling



Dissect it

$$12 \times 8 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$

$$12 \times 8 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$

$$12 \times 8 = 12 \times \square + 12 \times \square + 12 \times \square$$

$$= \square + \square + \square$$

$$= \square$$

$$12 \times 8 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$



If I know $12 \times 8 = 96$ then I also know...

$$\square \times \square = 96$$

$$96 = \square \times \square$$

$$96 = \square \times \square$$

$$\square \div \square = \square$$

$$\square = \square \div \square$$

___ multiplied by ___ is ___

___ groups of ___ is ___

___ shared equally between 12 is ___ each

___ put into groups of 12 is ___ groups of 12

___ and ___ are factors of ___

___ is a multiple of ___ and ___

$$80 = \square \div 12$$

$$9,600 = \square \times 12$$

$$12 = \square \div 80$$

$$\square \times 12 = 9600$$

$$\frac{1}{12} \text{ of } \square = 80$$

Harry draws eight dodecagons (12 sided shapes). How many sides does he draw **in total**?

How many egg boxes that **each** hold a dozen eggs can be filled with 96 eggs?

Sam stays in a hotel costing £120 per night. The hotel stay costs £960. How many nights did he stay?

Eight bags of carrots each weigh 1.2kg. How much do they weigh **altogether**?



$960 \div 8 = 120$
True or false?

Derive it

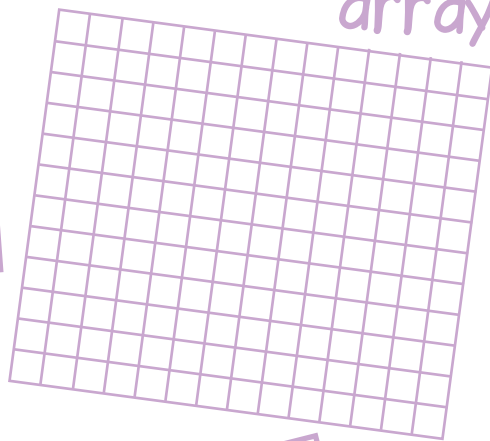
Deepen it

Draw it

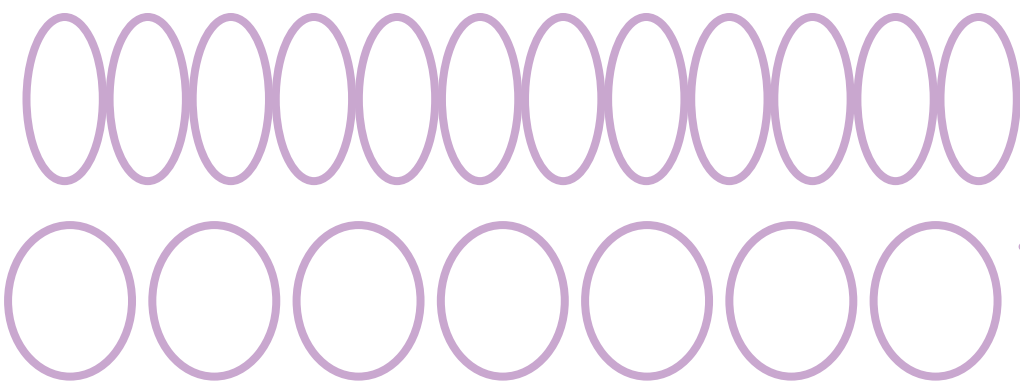
bar



array



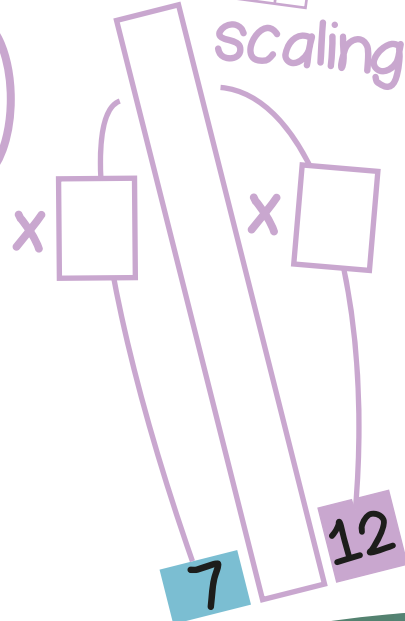
groups



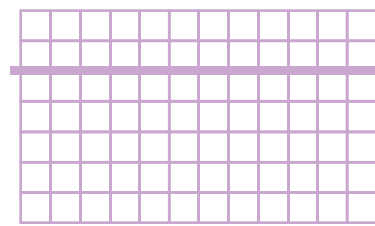
number line



scaling



Dissect it



$$12 \times 7 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

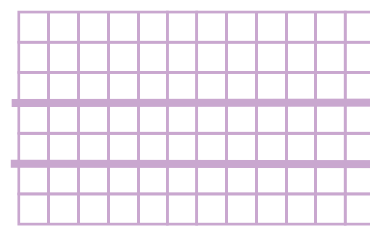
$$= \square$$



$$12 \times 7 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

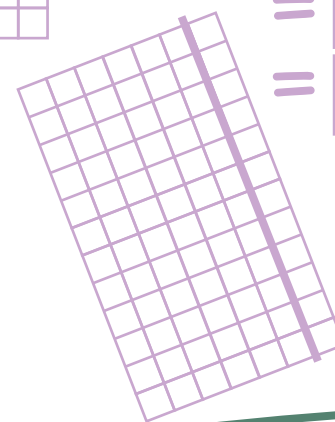
$$= \square$$



$$12 \times 7 = 12 \times \square + 12 \times \square + 12 \times \square$$

$$= \square + \square + \square$$

$$= \square$$



$$12 \times 7 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$



If I know $12 \times 7 = 84$ then I also know...

$$\square \times \square = 84$$

$$84 = \square \times \square$$

$$84 = \square \times \square$$

$$\square \div \square = \square$$

$$\square = \square \div \square$$

___ multiplied by ___ is ___

___ groups of ___ is ___

___ shared equally between 12 is ___ each

___ put into groups of 12 is ___ groups of 12

___ and ___ are factors of ___

___ is a multiple of ___ and ___



$$70 = \square \div 12$$

$$840 = \square \times 12$$

$$12 = \square \div 70$$

$$\square \times 12 = 8400$$

$$\frac{1}{12} \text{ of } \square = 70$$

Gill jogs 12km per day for a week. How far does she jog **in total**?

840 spectators sit in rows of 12. How many rows do they fill?

Chocolate bars cost £1.20 each. How much will 7 bars cost **altogether**?

Fran saves £8400 in a year, saving an equal amount each month. How much does she save **each** month?



$960 \div 8 = 120$
True or false?

Derive it

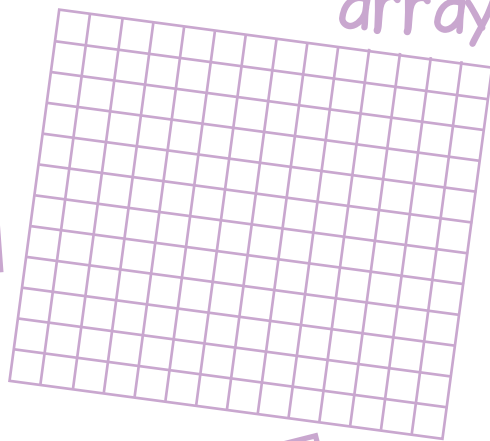
Deepen it

Draw it

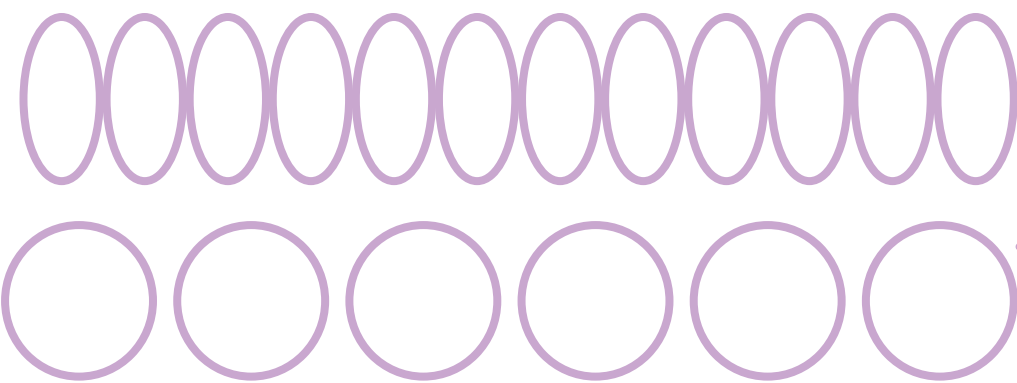
bar



array



groups

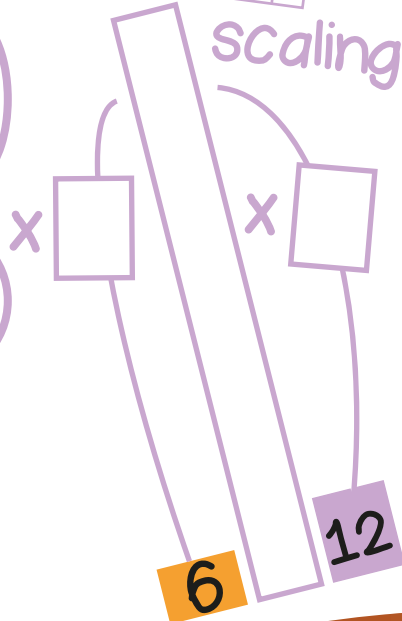


number line

0

72

scaling



Dissect it

$$12 \times 6 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$

$$12 \times 6 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$

$$12 \times 6 = 12 \times \square + 12 \times \square + 12 \times \square$$

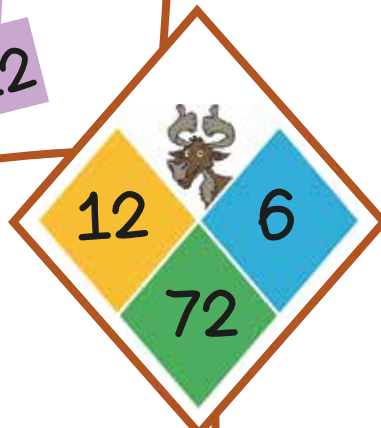
$$= \square + \square + \square$$

$$= \square$$

$$12 \times 6 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$



If I know $12 \times 6 = 72$ then I also know...

$$\square \times \square = 72$$

$$72 = \square \times \square$$

$$72 = \square \times \square$$

$$\square \div \square = \square$$

$$\square = \square \div \square$$

___ multiplied by ___ is ___

___ groups of ___ is ___

___ shared equally between 12 is ___ each

___ put into groups of 12 is ___ groups of 12

___ and ___ are factors of ___

___ is a multiple of ___ and ___

$$60 = \square \div 12$$

$$7200 = \square \times 12$$

$$12 = \square \div 600$$

$$\square \times 12 = 720$$

$$\frac{1}{12} \text{ of } \square = 60$$



$6 \div 72 = 12$
True or false?

Ellie saves the same amount **each** month. How much does she save **each** month if she saves £720 in a year?

72 bulbs are planted in 12 equal rows. How many bulbs in **each** row?

Each baking tray holds 12 cakes. How many cakes are there in 60 trays **altogether**?

Each small glass holds 120ml. How much do six glasses hold?

Derive it

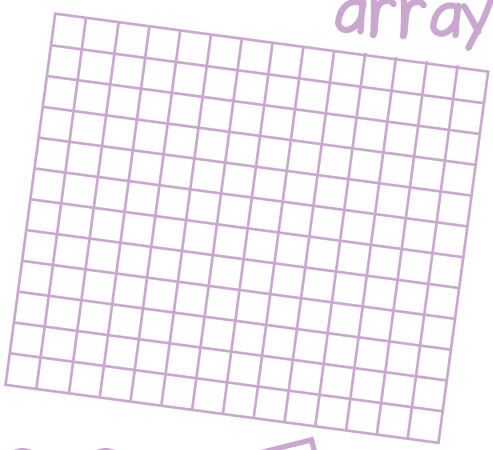
Deepen it

Draw it

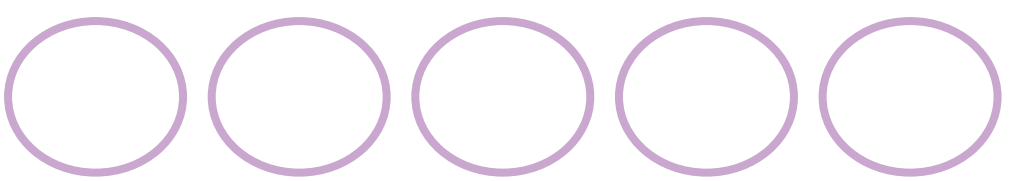
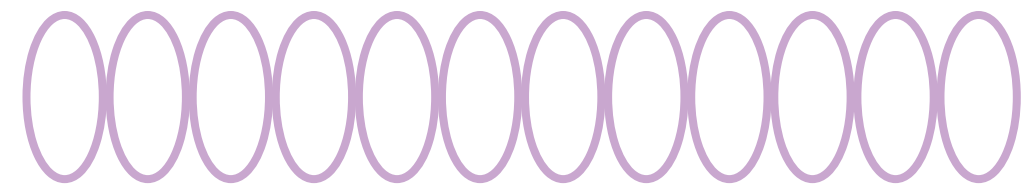
bar



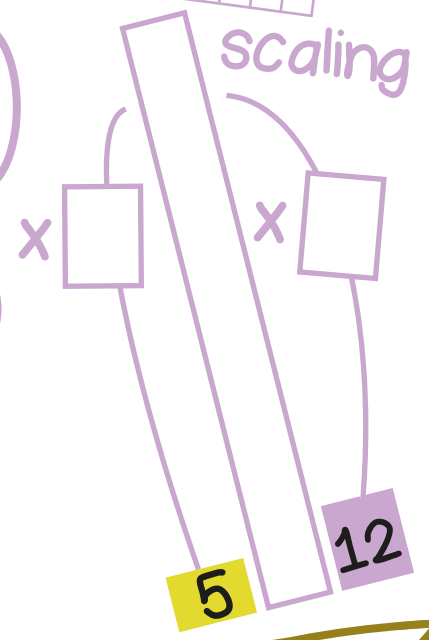
array



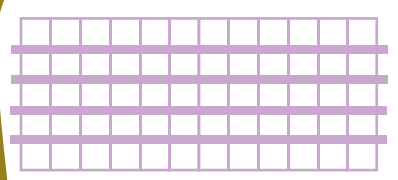
groups



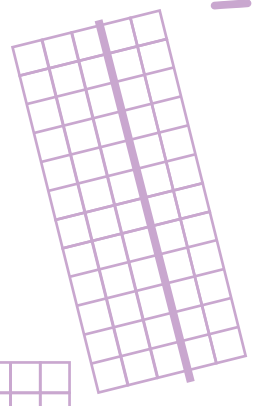
number line



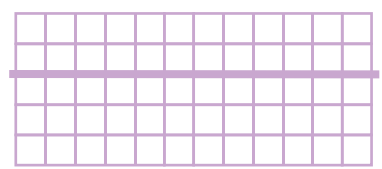
Dissect it



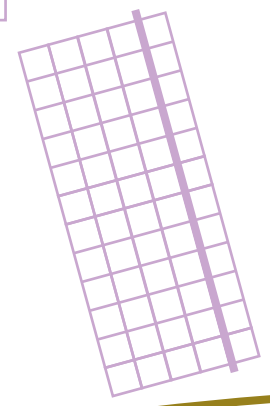
$$12 \times 5 = 12 + \square + 12 + \square + \square = \square$$



$$12 \times 5 = 12 \times \square + 12 \times \square = \square + \square = \square$$



$$12 \times 5 = 12 \times \square + 12 \times \square = \square + \square = \square$$



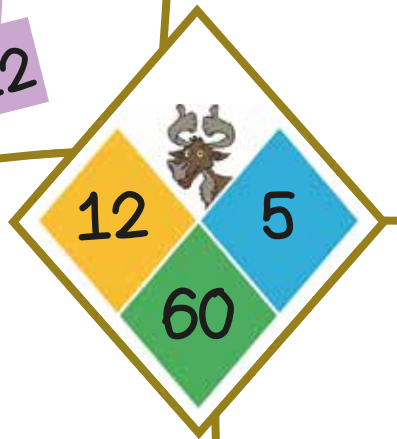
$$12 \times 5 = 12 \times \square + 12 \times \square = \square + \square = \square$$



If I know $12 \times 5 = 60$ then I also know...

$$\begin{aligned} \square \times \square &= 60 \\ 60 &= \square \times \square \\ 60 &= \square \times \square \\ \square \div \square &= \square \\ \square &= \square \div \square \end{aligned}$$

___ multiplied by ___ is ___
 ___ groups of ___ is ___
 ___ shared equally between 12 is ___ each
 ___ put into groups of 12 is ___ groups of 12
 ___ and ___ are factors of ___
 ___ is a multiple of ___ and ___



$$\begin{aligned} 50 &= \square \div 12 \\ 6000 &= \square \times 12 \\ 12 &= \square \div 50 \\ \square \times 12 &= 6000 \\ \frac{1}{12} \text{ of } \square &= 50 \end{aligned}$$



True or false?
 $2 \times 12 \times 5 = 12 \times 10$

A scarf has 60 stripes. There are 12 stripes in each colour. How many colours are there?

How many eggs are there in five dozen eggs?

Derek saves £50 per month. How much does he save in a year?

A grocer splits 60kg of potatoes into 12 equal bags. What weight of potatoes is there in each bag?

Derive it

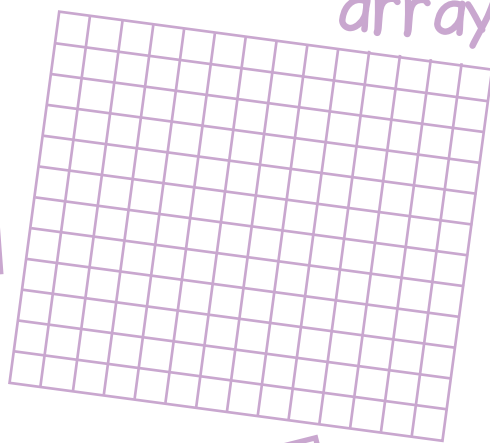
Deepen it

Draw it

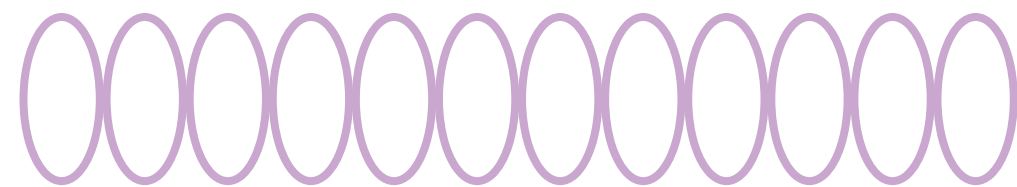
bar



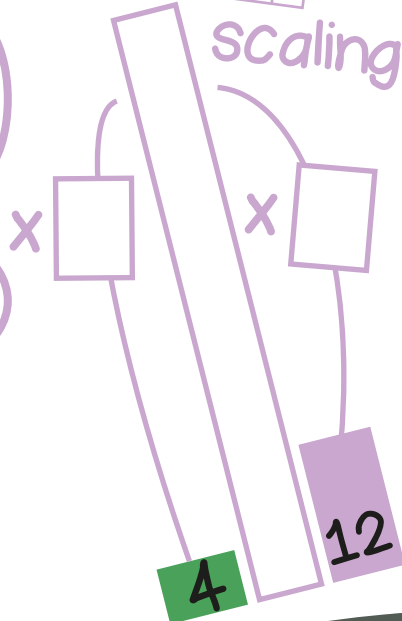
array



groups



scaling



number line



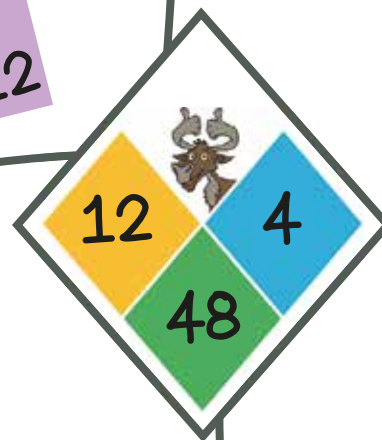
Dissect it

$$12 \times 4 = 12 + \square + 12 + \square = \square$$

$$12 \times 4 = 12 \times \square + 12 \times \square = \square + \square = \square$$

$$12 \times 4 = 12 \times \square + 12 \times \square = \square + \square = \square$$

$$12 \times 4 = 12 \times \square + 12 \times \square = \square + \square = \square$$



If I know $12 \times 4 = 48$ then I also know...

$$\square \times \square = 48$$

$$48 = \square \times \square$$

$$48 = \square \times \square$$

$$\square \div \square = \square$$

$$\square = \square \div \square$$

___ multiplied by ___ is ___

___ groups of ___ is ___

___ shared equally between 12 is ___ each

___ put into groups of 12 is ___ groups of 12

___ and ___ are factors of ___

___ is a multiple of ___ and ___

$$40 = \square \div 12$$

$$4800 = \square \times 12$$

$$12 = \square \div 40$$

$$\square \times 12 = 4800$$

$$\frac{1}{12} \text{ of } \square = 40$$

There are 12 horses in a paddock. How many legs do they have **in total**?

12 people travel in **each** minibus. How many minibuses are needed for 48 people?

Twelve concert tickets cost £480. How much did they cost **each**?

Each pack of herbs weighs 120g. How much will 4 packs of herbs weigh **altogether**?



True or false?

$$48 \div 12 = 24 \div 6$$

Derive it

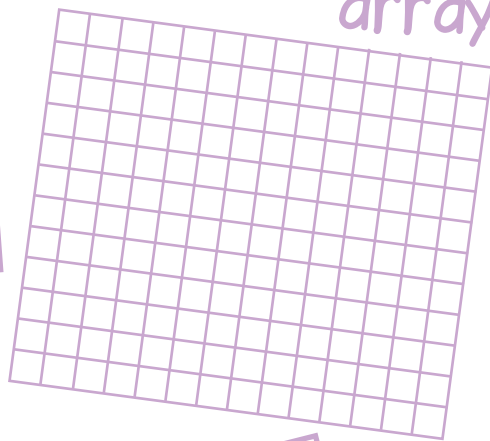
Deepen it

Draw it

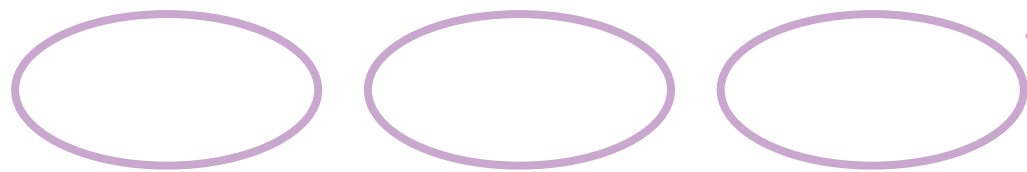
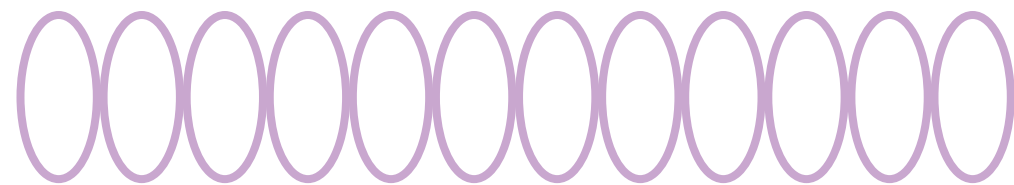
bar



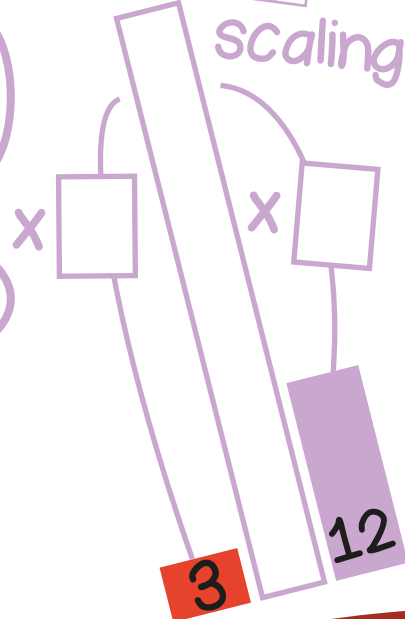
array



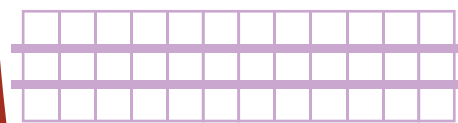
groups



number line

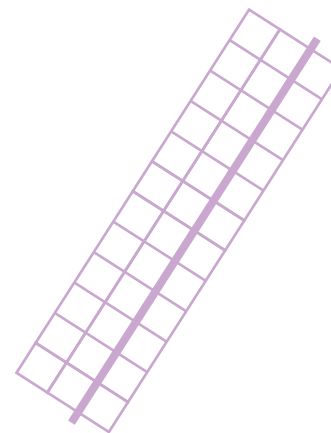


Dissect it



$$12 \times 3 = 12 + \square + 12$$

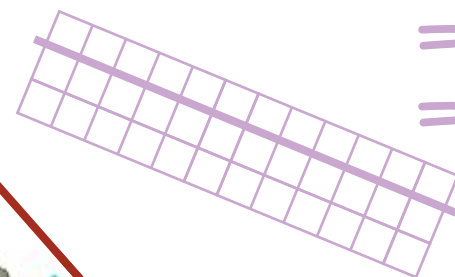
$$= \square$$



$$12 \times 3 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

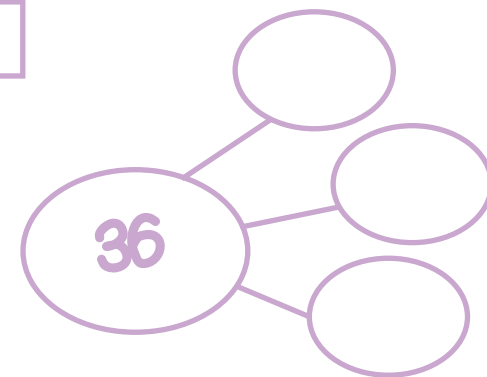
$$= \square$$



$$12 \times 3 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$



If I know $12 \times 3 = 36$ then I also know...

$$\square \times \square = 36$$

$$36 = \square \times \square$$

$$36 = \square \times \square$$

$$\square \div \square = \square$$

$$\square = \square \div \square$$

___ multiplied by ___ is ___

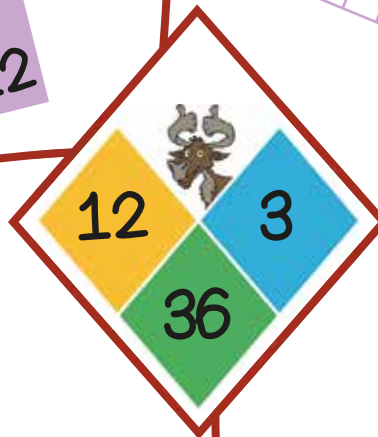
___ groups of ___ is ___

___ shared equally between 12 is ___ each

___ put into groups of 12 is ___ groups of 12

___ and ___ are factors of ___

___ is a multiple of ___ and ___



$$30 = \square \div 12$$

$$3600 = \square \times 12$$

$$12 = \square \div 30$$

$$\square \times 12 = 3600$$

$$\frac{1}{12} \text{ of } \square = 30$$



True or false?
 $360 \div 30 = 10$

Debbie draws twelve triangles. How many straight sides has she drawn **altogether**?

Eric buys 12 equal bags of sweets. The **total** weight is 3600g. How much does each bag weigh?

Each bottle holds 1200ml of juice. How much juice is there in 3 bottles **in total**?

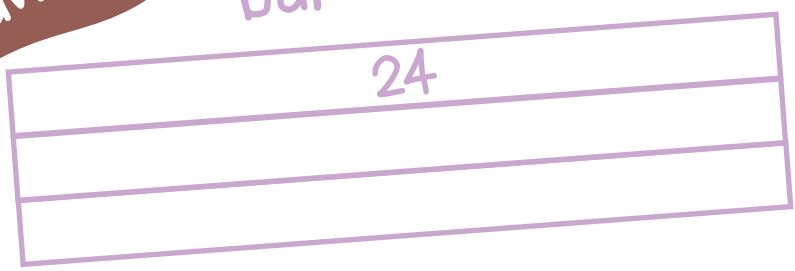
£36 is spent on 12 tickets for a raffle. How much is **each** ticket?

Derive it

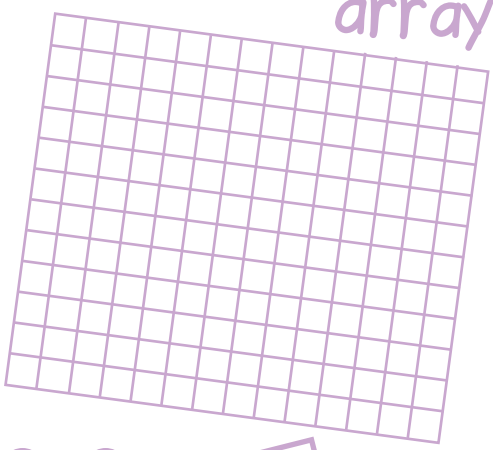
Deepen it

Draw it

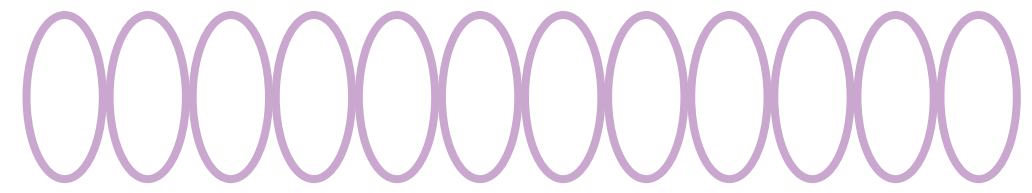
bar



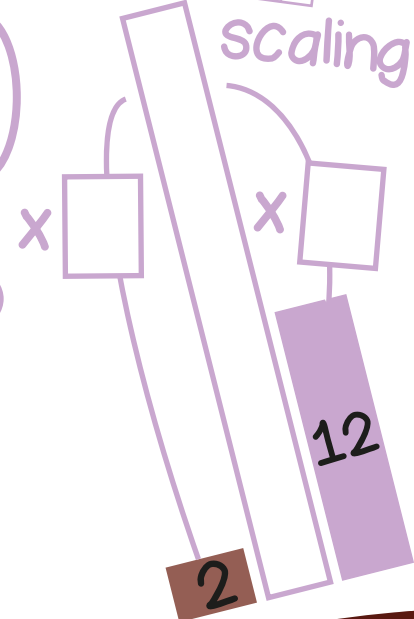
array



groups



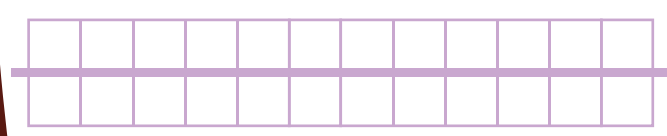
scaling



number line

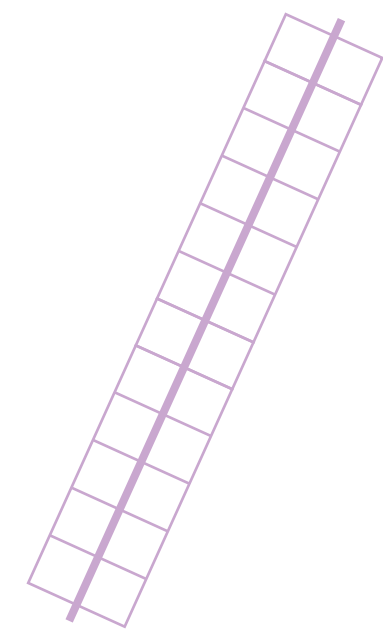


Dissect it



$$12 \times 2 = 12 + \square$$

$$= \square$$

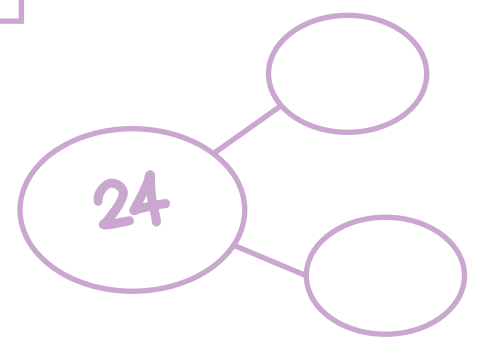
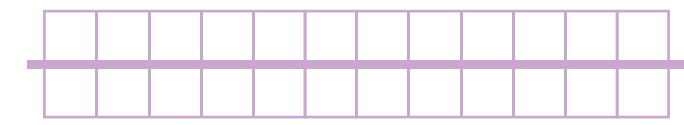


$$12 \times 2 = 12 \times \square + 12 \times \square$$

$$= \square + \square$$

$$= \square$$

$$\text{Double } 12 = \square$$



If I know $12 \times 2 = 24$ then I also know...

$$\square \times \square = 24$$

$$24 = \square \times \square$$

$$24 = \square \times \square$$

$$\square \div \square = \square$$

$$\square = \square \div \square$$

___ multiplied by ___ is ___

___ groups of ___ is ___

___ shared equally between 12 is ___ each

___ put into groups of 12 is ___ groups of 12

___ and ___ are factors of ___

___ is a multiple of ___ and ___



How many eggs are there in two dozen eggs?

One show ticket costs £120. How much would twenty tickets cost?

240 biscuits are shared equally onto twelve plates. How many biscuits are there on **each** plate?

2400 beads are threaded with 120 on **each** necklace. How many necklaces are there?

$$20 = \square \div 12$$

$$2400 = \square \times 12$$

$$12 = \square \div 20$$

$$\square \times 12 = 2400$$

$$\frac{1}{12} \text{ of } \square = 20$$



True or false?
 $204 \div 12 = 20$

Derive it

Deepen it