

Rhifedd/Numeracy



Cyflwyno sut yr ydym yn
dysgu rhifedd.....

An introduction of how we
teach numeracy.....



Amserlen dysgu sylfaen/Foundation timetable

Wythnosau	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Hydref	Gwerth lle		Adio		Mesur (hyd/lled/uchder)		Tynnu		Lluosi		Siap 2d a 3d		Rhannu		Ail ymweld (asesu ar gyfer dysgu)	
Gwanwyn	Arian			Casglu data		Lleoliad/Arddodiad		Amser			Ffracsiynau			Ail ymweld (asesu ar gyfer dysgu)		
Haf	Mesur (mas a cyfaint)		Datrys Problemau		Gwerth lle		Adio		Tynnu		Lluosi		Rhannu		Ail ymweld (asesu ar gyfer dysgu)	

- Cynllun Un, Dau, Tri fel is-dasg ffocws yn canolbwyntio ar sgiliau sylfaenol drwy'r flwyddyn cyfan



Amserlen dysgu sylfaen/Foundation timetable



Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Autumn	Place value		Addition		Measurement (length/width/height)		Subtraction		Multiply		Shape 2d and 3d		Division		Revisit (Assessment for learning)
Spring	Money			Data		Positioning		Time			Fractions			Revisit (Assessment for learning)	
Summer	Measure(capacity)		Problem Solving		Place Value		Addition		Subtraction		Multiply		Division		Revisit (Assessment for learning)

- Cynllun Un, Dau, Tri used to reinforce basic skills throughout the year.



Amserlen yr adran iau/Older learners timetable

Wythnosau	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Hydref	Rhif: Adio, Tynnu, Lluosi, Rhannu					Gwerth lle/ Talgrynnu		Mesur (Hyd, Pwysau, Cyfaint)			Siap 2d, 3d priodweddau, perimedr, arwynebedd			Ailymweld (asesu ar gyfer y dysgu)	
Gwanwyn	Arian			Data; Hel data, dadansoddi data			Amser; darllen cloc, clociau analog a digidol, amserlenni			Ffracsiynau; ffracsiwn o rif/siap, canrannau, degolion			Ailymweld (asesu ar gyfer y dysgu)		
Haf	Safle; Cyfeiriannu, onglau		Ffocws rhesymu		Profion Cenedlaethol		Ail ymweld (asesu ar gyfer y dysgu), unrhyw beth mae'r athro/athrawes yn meddwl sydd angen sylw ychwanegol.								



Amserlen yr adran iau/Older learners timetable



Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Autumn	Number: Addition, Subtraction, Multiplication, Division					Place value/ rounding up		Measure (Length, Weight, Capacity)			Shape 2d, 3d properties, perimeter, area			Revisit (assessments for learning)	
Spring	Money			Data; Collect data, analyse data			Time; reading clocks, <u>analog</u> and digital clocks, timetables				Fractions; fractions of number/shape. Percentages <u>and</u> <u>decimals</u>			Revisit (assessments for learning)	
Summer	Position; Orientation, angles		Reasoning		National Tests			Revisit (assessments for learning) anything that needs going over again.							



Camau dysgu/Learning steps

- Cyflwyno'r sgil / Introduce the skill
- Ymarfer y sgil / Practise the skill
- Ymresymu / Reasoning
- Atgyfnerthu'r sgil ar draws y meysydd dysgu eraill / Reinforce the skill across the other areas of learning

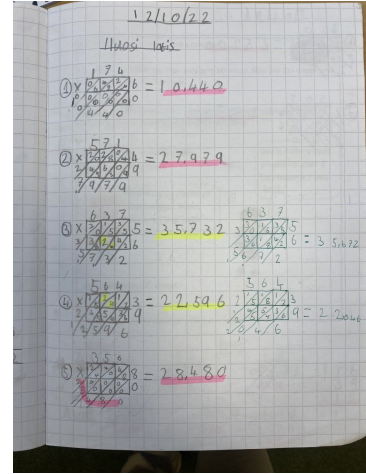


Cyflwyno

Cyflwyno'r sgil i'r dysgwyr. Darganfod gwybodaeth blaenorol. Gall hwn fod ar lafar, bwrdd gwyn, grwpiau bach.

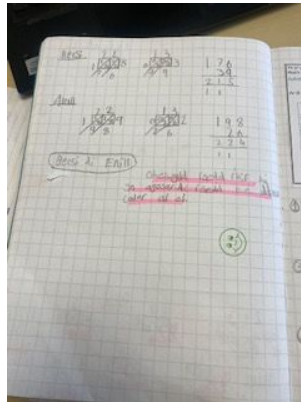
Ymarfer

Rhoi cyfle i blant ymarfer a meistrolï'r sgil. Gall hwn fod yn y llyfr, drwy chwarae gem a.y.y.b



Ymresymu

Rhoi problem neu cwestiwn iddynt. Defnyddio'r sgil i ddatrys y broblem.



Trawsgwricwlaidd

Cysylltu'r sgil gyda maes dysgu arall. Atgyfnerthu'r sgiliau mewn sefyllfa bywyd go iawn.

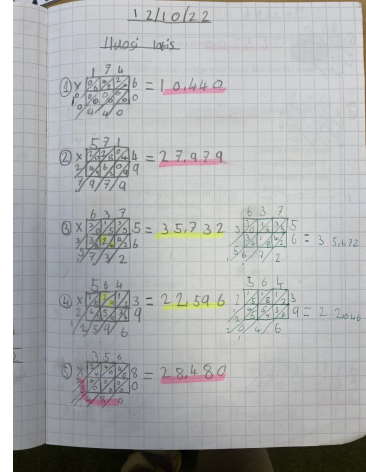


Introduce

Introduce the skill to the learner.
Establish prior knowledge. This can be verbally, white boards or small groups.

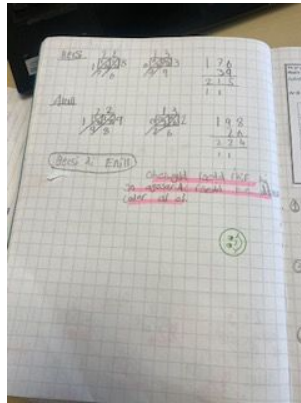
Practise

Chance to practise and master the skill.
This can be in their workbooks, playing games etc.



Reasoning

Use their skill knowledge to solve a problem or answer a question.



Cross-curricular

Connect the skill with another learning area.
Reinforce in a real life situation.



Darpariaeth ac Adnoddau/ Resources and Provision



SGWARIAU CANT

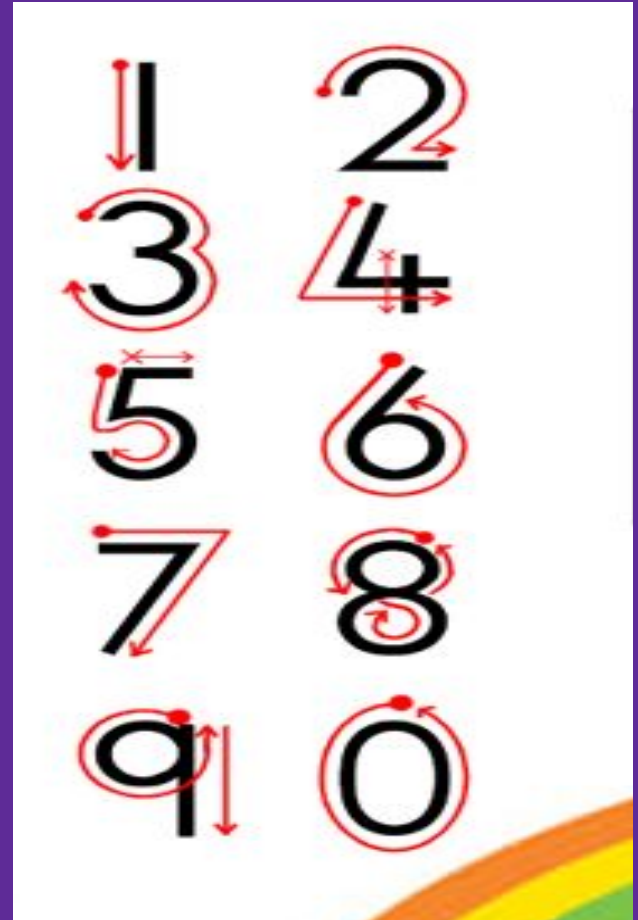
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Ffurio rhifau/ Number Formation

Holl bwysig cael cysondeb wrth ffurfio rhifau. Wrth gychwyn ffurfio rhifau yn y Meithrin a'r Derbyn rydym yn defnyddio'r drefn hyn gan gychwyn ar y smotyn bob amser.

It's important to have a consistent approach to number formation. In the Nursery and Reception when we start learning how to form numbers we follow this formation, always starting on the red spot.



Y 4 rheol / The 4 rules



Elfennau cychwynol ar y daith
rhifedd yw'r pedwar rheol.

The 4 rules are the starting
points in the journey to
learning numeracy.



Ein geirfa / Our language



Un yn fwy

one more

Un yn llai

one less

adïo

add

tynnu

subtract

rhannu

divide

o'r gloch

o' clock

lluosi

multiply

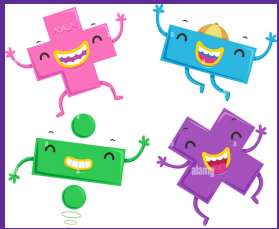
Yn hafal i

equals to

Meithrin, Derbyn a Blwyddyn 1



Ein geirfa / Our language



un yn fwy

one more

adio

add

un yn llai

one less

rhannu

divide

tynnu

subtract

yn fwy na/llai na

More than/less than

dwbl

double

lluosi

multiply

o'r gloch

o' clock

cyfanswm

amount

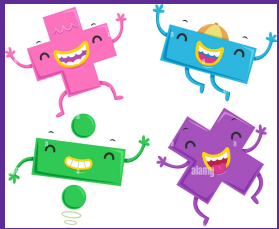
yn hafal i/yn gwneud

equals to

Blwyddyn 2 a 3



Ein geirfa / Our language



gwahaniaeth

difference

adïo

add

cyfartaledd

average

rhannu

divide

tynnu

subtract

yn fwy na/llai na

More than/less than

lluosi

multiply

amrediad

range

cyfanswm

amount

canolrif

median

wedi sgwario

squared

yn hafal i/yn gwneud

equals to

talgrynwch

round up

Blwyddyn 4,5 a 6





Adio/Add



Sut mae dysgu 'adio' yn edrych yn ein dosbarthiadau.

How does our teaching of 'addition' look in our classrooms.

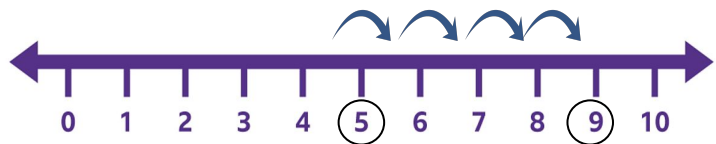
1 digid + 1 digid

$$5 + 4 = 9$$

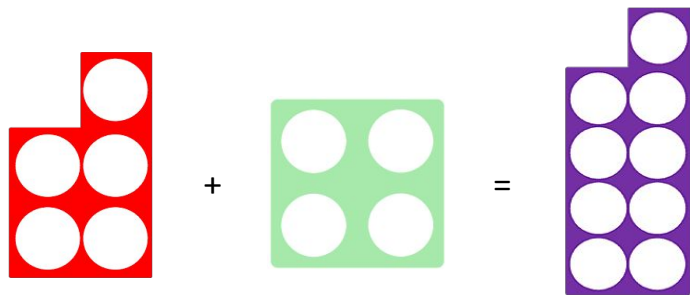
“Pump adio pedwar yn hafal i naw”



Cyfrif y nifer cywir o wrthrychau.
Adio'r gwrthrychau at ei gilydd.

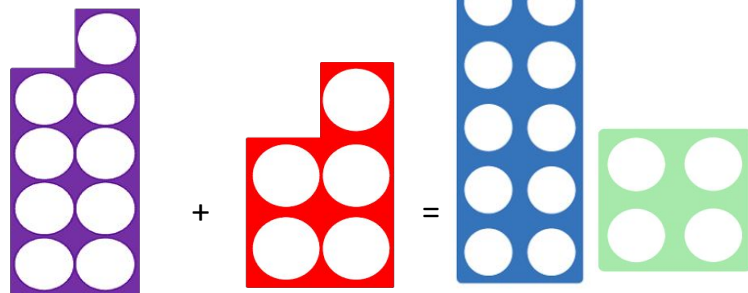


Llinell rif -
cyfrif ymlaen



Datblygiad

Dewis y numicon
cywir, adio'r ddau
numicon i ddod o
hyd i'r ateb.



Sgwar 100
Cyfrif ymlaen

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$$9 + 5 = 14$$

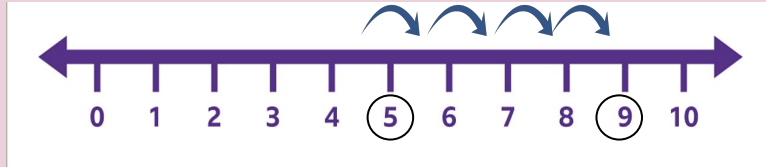
1 digit + 1 digit

$$5 + 4 = 9$$

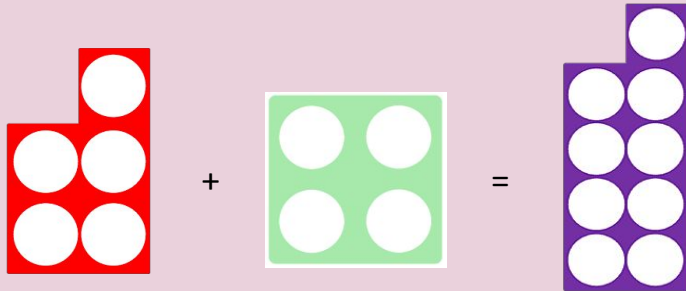
"Five add 4 equals to 9"



Count the objects
Add them
together

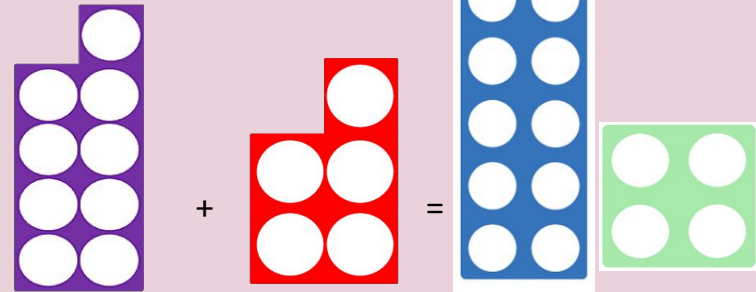


Number line -
count forwards



Progression →

Choose correct
numicon plates,
add together

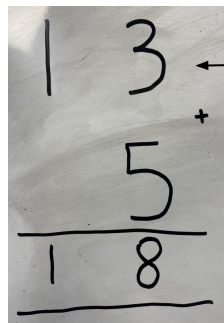


100 square
Count forward

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$$9 + 5 = 14$$

2 digid + 1 digid



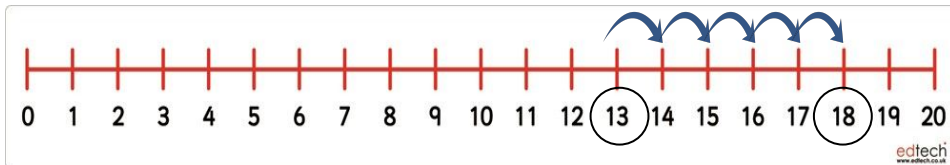
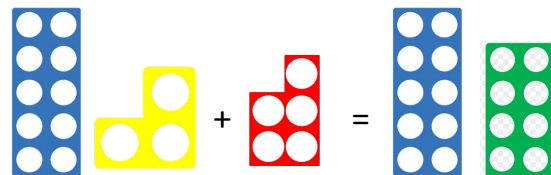
Dechrau o'r dde

Adio ar i'w lawr

Ateb rhwng y llinellau

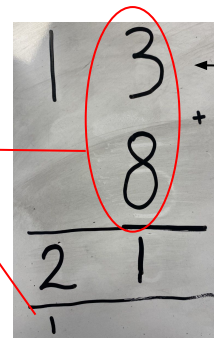
Symud i'r chwith

Datblygiad



Os yw'r 2 rhif yn adio i wneud mwy nag 10 mae'r degau yn mynd o dan y degau yn symud i'r chwith

Adio y degau i'r rhifau sydd yn y golofn yno



Dechrau o'r dde

Adio ar i'w lawr

Ateb rhwng y llinellau

Symud i'r chwith

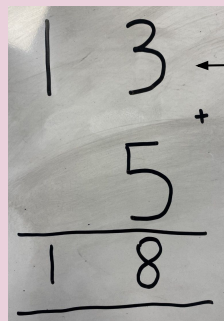
$$8 + 13 = 21$$

Adio'r degau

Cyfrif ymlaen (adio'r unedau)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

2 digit + 1 digit



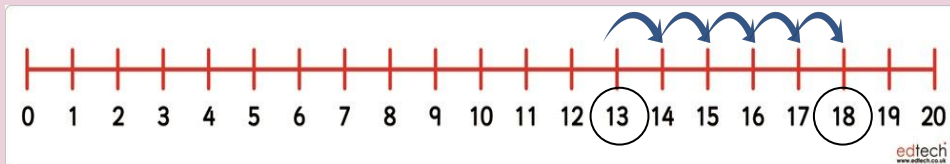
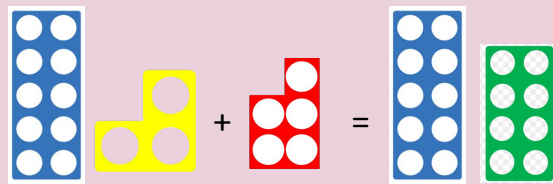
Start on right

Add downwards

Answer between lines

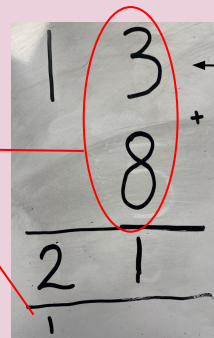
Move to left

Progression



If 2 numbers add to more than 10 the tens go below the tens moving to the left.

Add the tens to the numbers in that column



Start on right

Add downwards

Answer between lines

Move to left

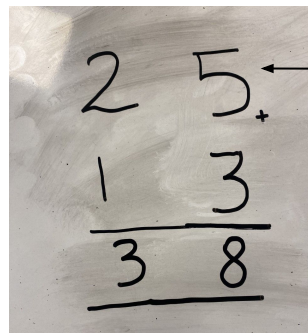
$$8 + 13 = 21$$

Add tens

Count forwards (add units)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

2 digid + 2 digid



Dechrau o'r dde

Adio ar i lawr

Ateb rhwng y llinellau

Symud i'r chwith

Datblygiad

Adio'r degau

Cyfrif ymlaen
(adio'r unedau)

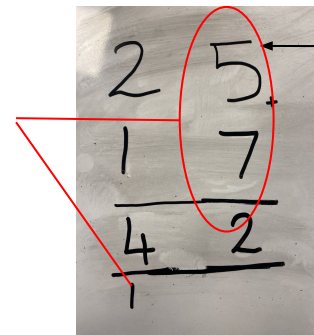
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Os yw'r 2 rif yn
adio i wneud mwy
na 10 mae'r
unedau yn mynd o
danodd a'r degau
yn symud i'r
chwith

Adio y degau i'r
rhifau sydd yn y
golofn yno

Adio'r degau

Cyfrif ymlaen
(adio'r unedau)



Dechrau
o'r dde

Adio ar i'w
lawr

Ateb
rhwng y
llinellau

Symud i'r
chwith

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

2 digit + 2 digit

Start on right

Add downwards

Answer between lines

Move to left

Progression

If the 2 numbers add to more than 10 the units go under and the tens move to the left.

Add the tens to the numbers in that column

Start on right

Add downwards

Answer between lines

Move to left

Add tens

Count forwards (add the units)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Add tens

Count forwards (add the units)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

3 digid + 3 digid

A handwritten addition problem on a chalkboard. The numbers 341 and 126 are written one above the other, aligned by their digits. A horizontal line is drawn below the second number. The sum, 467, is written below the line. A small '+' sign is to the right of the first number.

$$\begin{array}{r} 341 \\ + 126 \\ \hline 467 \end{array}$$

Dechrau o'r dde

Adio ar i lawr

Ateb rhwng y llinellau

Symud i'r chwith

Os ydych yn adio rhifau gyda fwy o ddigidau, dilynwch union yr un camau sydd wedi cael eu amlinellu



Os yw'r 2 rhif yn adio i wneud mwy nag 10 mae'r unedau yn mynd o danodd a'r degau yn symud i'r chwith

Adio y degau i'r rhifau sydd yn y colofn yno

Parhau i wneud hyn
Os mae'r colofn nesaf hefyd yn fwy nag 10

Adio'r degau i'r rhifau sydd yn y colofn yno

Parhau i wneud hyn
Os mae'r colofn nesaf hefyd yn fwy nag 10

Os nad oes rhif arall yn y golofn gwthiwch y rhif o dan i fyny

A handwritten addition problem on a chalkboard. The numbers 341 and 159 are written one above the other, aligned by their digits. A horizontal line is drawn below the second number. The sum, 500, is written below the line. Red circles are drawn around the digits 4 and 1 of the first number, and 5 and 9 of the second number. A red arrow points from the text 'Adio ar i lawr' to the 4 and 1. Another red arrow points from the text 'Ateb rhwng y llinellau' to the 5 and 9. A third red arrow points from the text 'Symud i'r chwith' to the 0 and 0.

$$\begin{array}{r} 341 \\ + 159 \\ \hline 500 \end{array}$$

Dechrau o'r dde

Adio ar i lawr

Ateb rhwng y llinellau

Symud i'r chwith



A handwritten addition problem on a chalkboard. The numbers 857 and 336 are written one above the other, aligned by their digits. A horizontal line is drawn below the second number. The sum, 1193, is written below the line. Red circles are drawn around the digits 5 and 7 of the first number, and 3 and 6 of the second number. A red arrow points from the text 'Adio ar i'w lawr' to the 5 and 7. Another red arrow points from the text 'Ateb rhwng y llinellau' to the 3 and 6. A third red arrow points from the text 'Symud i'r chwith' to the 1 and 1. A yellow circle is drawn around the 1 and 1.

$$\begin{array}{r} 857 \\ + 336 \\ \hline 1193 \end{array}$$

Dechrau o'r dde

Adio ar i'w lawr

Ateb rhwng y llinellau

Symud i'r chwith

3 digit + 3 digit

A handwritten addition problem on a piece of paper. The numbers 341 and 126 are written in two rows, aligned by their units. A horizontal line is drawn below the second row. The sum, 467, is written below the line. An arrow points from the text 'Start on right' to the units column.

$$\begin{array}{r} 341 \\ 126 \\ \hline 467 \end{array}$$

Start on right

Add downwards

Answer between lines

Move to left

If you are adding numbers with more digits, follow the exact same steps.



If the 2 numbers add to more than 10 the units go under and tens move to the left.

Add the tens to the numbers in that column.

Continue to do this if the next column is also adding to more than 10

Add the tens to the numbers in that column

Continue to do this if the next column is also more than 10

If there is no other number in the column push the number underneath upwards.

A handwritten addition problem on a piece of paper. The numbers 341 and 159 are written in two rows, aligned by their units. A horizontal line is drawn below the second row. The sum, 500, is written below the line. Red circles are drawn around the units column (1+9=10) and the tens column (4+5=9). An arrow points from the text 'Start on right' to the units column.

$$\begin{array}{r} 341 \\ 159 \\ \hline 500 \end{array}$$

Start on right

Add downwards

Answer between lines

Move to left



A handwritten addition problem on a piece of paper. The numbers 857 and 336 are written in two rows, aligned by their units. A horizontal line is drawn below the second row. The sum, 1193, is written below the line. Red circles are drawn around the units column (7+6=13), the tens column (5+3=8), and the hundreds column (8+3=11). A yellow circle is drawn around the thousands digit (1). An arrow points from the text 'Start on right' to the units column.

$$\begin{array}{r} 857 \\ 336 \\ \hline 1193 \end{array}$$

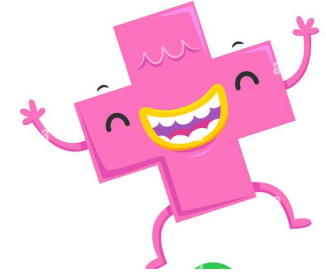
Start on right

Add downwards

Answer between lines

Move to left

Esiampplau Adio/Adding Examples



$$\begin{array}{r} 37 \\ + 18 \\ \hline 55 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 247 \\ + 396 \\ \hline 643 \\ \hline 1 \quad 1 \end{array}$$

1 - 100 Grid

odd	even	odd	even	odd	even	odd	even	odd	even
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$45 + 17 = 62$

1 - 100 Grid

odd	even	odd	even	odd	even	odd	even	odd	even
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$38 + 42 = 80$

Adio gydag unedau amrywiol

Wrth adio rhifau sydd â gwahanol unedau, mae'n bwysig ein bod yn eu gosod o fewn y colofnau unedau cywir. Fel arall, gall yr uned 7 gael ei adio fel 70 ar ddamwain fel y gweler isod.

$$98 + 7 =$$

	D	U
	9	8
+	7	
	1	68



	D	U
	9	8
+		7
	1	05
		1



	M	C	D	U
		1	4	93
+			3	4
		5	2	7
			1	



Adding with various units

When adding with numbers with different units, it's important that we place them in the correct columns. Otherwise the unit 7 could be added as 70 by mistake as shown below.

$$98 + 7 =$$

	D	U
	9	8
+	7	
	1	6 8



	D	U
	9	8
+		7
	1	0 5
		1



	M	C	D	U
	1	4	9	3
+			3	4
		5	2	7
		1		

Adio gyda phwynt degol

$$\begin{array}{r} 24.6 \\ + 13.2 \\ \hline 37.8 \end{array}$$

Dechrau o'r dde

Adio ar i lawr

Ateb rhwng y llinellau

Symud i'r chwith



Os yw'r 2 rhif yn adio i wneud mwy nag 10 mae'r unedau yn mynd o danodd a'r degau yn symud i'r golofn nesaf (o dan y linell)

Adio y degau i'r rhifau sydd yn y colofn yno

Parhau i wneud hyn
Os mae'r colofn nesaf hefyd yn fwy nag 10

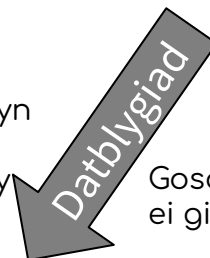
$$\begin{array}{r} 24.6 \\ + 13.7 \\ \hline 38.3 \end{array}$$

Dechrau o'r dde

Adio ar i lawr

Ateb rhwng y llinellau

Symud i'r chwith



Gosod yr unedau cywir o dan ei gilydd

Dechrau o'r dde

Adio ar i lawr

Ateb rhwng y llinellau

Gosod y pwynt degol yn union o dan y gweddill yn y bwlch ateb

Symud i'r chwith

$$\begin{array}{r} 148.78 \\ + 2.36 \\ \hline 151.14 \end{array}$$

Os ydych yn adio rhifau gyda fwy o ddigidau, dilynwch union yr un camau sydd wedi cael eu amlinellu.

Adding with a decimal point

$$\begin{array}{r} 24.6 \\ + 13.2 \\ \hline 37.8 \end{array}$$

Start on right

Add downwards

Answer between lines

Move to left



If the two numbers add to make more than 10 the units then go underneath and the tens move to the next column (under the line). Add the tens to the numbers in that column.

Continue to do this if the next column is also more than 10.

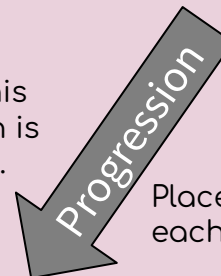
$$\begin{array}{r} 24.6 \\ + 13.7 \\ \hline 38.3 \\ 1 \end{array}$$

Start on right

Add downwards

Answer between lines

Move to left



Place the correct units under each other.

Start on right

Add downwards

Answer between lines

Place the decimal point underneath in between the lines.

Move to left

If you are adding numbers with more units, follow the exact same steps.

$$\begin{array}{r} 148.78 \\ + 2.36 \\ \hline 151.14 \\ 1 \quad 1 \quad 1 \end{array}$$



Tynnu/Subtracting



Sut mae dysgu 'tynnu' yn edrych yn ein dosbarthiadau.

How does our teaching of 'subtraction' look in our classrooms.

1 digid - 1 digid

"Naw tynnu pedwar yn hafal i 5"

$$9 - 4 = 5$$

Cyfrif 9 gwrthrych, gofyn i'r plentyn tynnu 4.
Cyfrif faint o wrthrychau sydd ar ol.



Dewis numicon cywir, tynnu un o'r llall i gael yr ateb cywir.



Neidio yn ol un rhif ar y tro

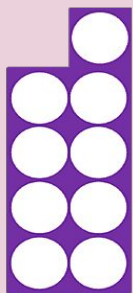
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

1 digit - 1 digit

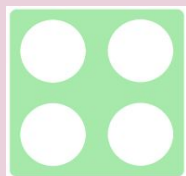
"Nine take away four equals to five"

$$9 - 4 = 5$$

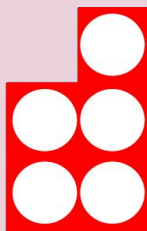
Count 9 objects, take away 4 and count how many are left.



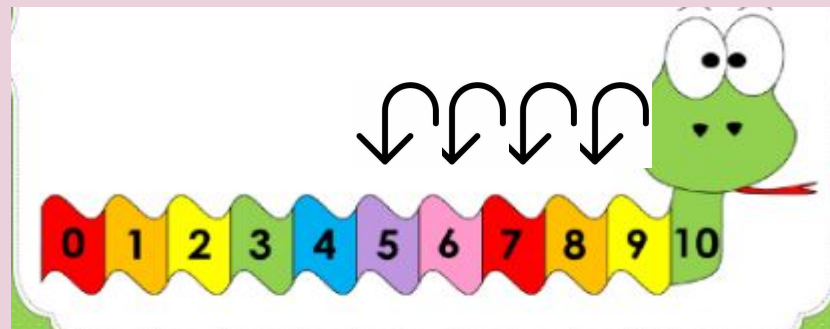
-



=



Choose correct numicon plates, take one from the other to come up with the correct answer.



Jump backwards one at a time

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

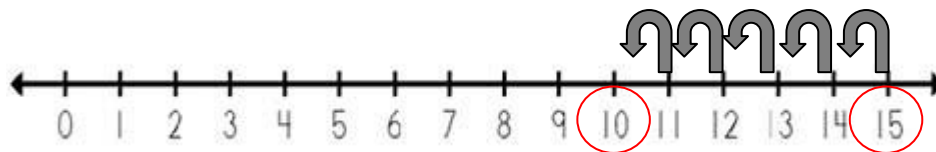
2 digid - 1 digid



“Un deg pump tynnu pump yn hafal i ddeg”

$$15 - 5 = 10$$

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



15 yn y pen a cyfri nôl 5



Llinell rif / Sgwar 100
Cyfrif yn ol un rhif ar y tro

2 digit - 1 digit

"Fifteen minus five equals ten"

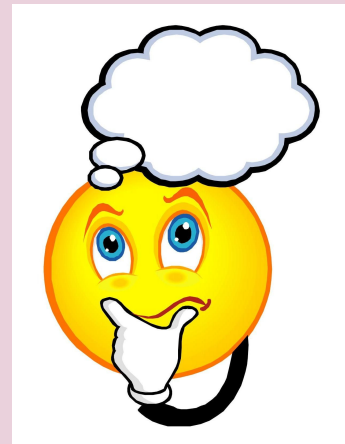


$$15 - 5 = 10$$

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



15 in your head and
count back 5



Number line/Hundred square
Count back one number at a time

Tynnu Gyda Sgwar 100 a/neu yn eich pen

1 - 100 Grid

odd	even	odd	even	odd	even	odd	even	odd	even
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

87-29=58

Ffeindio'r rhif cyntaf.

Tynnu'r degau gyntaf.

Cyfri nôl yr unedau un ar y tro.

1 - 100 Grid

odd	even	odd	even	odd	even	odd	even	odd	even
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

73-24=49



$87 - 21 =$ 87 yn eich pen, tynnu degau gyntaf $87-20 = 67$
yna tynnu'r unedau $67-1 = 66$

Tynnu Gyda Sgwar 100 or/and in your head

1 - 100 Grid

odd	even	odd	even	odd	even	odd	even	odd	even
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$87 - 29 = 58$

Find the first number.

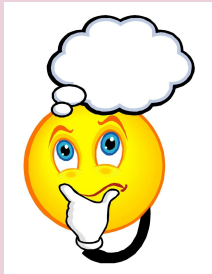
Take away the tens first.

Count back the units.

1 - 100 Grid

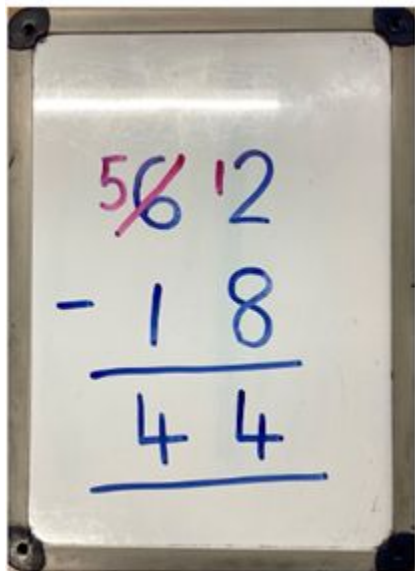
odd	even	odd	even	odd	even	odd	even	odd	even
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$73 - 24 = 49$



$87 - 21 =$ 87 in your head, take away the tens first $87 - 20 = 67$
then take away the units $67 - 1 = 66$

2 digid - 2 digid



Cychwyn ar y dde.

Os yw'r uned yn llai
ar y top nac ar y
gwaelod, benthyc
'deg' o'r degau.

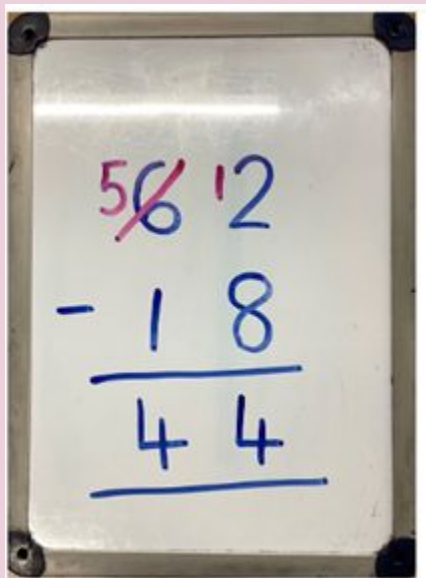
Dangos hyn fel yn y
diagram.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Neu defnyddio sgwar cant. Tynnu
degau gyntaf yna yr unedau.



2 digit - 2 digit



Start on the right..

If the unit is less on top than the bottom.
'Borrow' from the tens.

Show this as the diagram shows.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Or use a hundred square. Take away the tens first then the units.



3 digid - 2 digid

$$\begin{array}{r} \cancel{89}128 \\ - 367 \\ \hline 561 \end{array}$$

Cychwyn ar y dde.

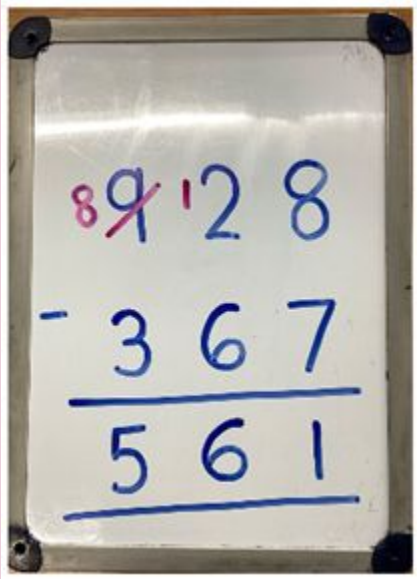
Os yw'r uned yn llai ar y top
nac ar y gwaelod, benthyc
'deg' o'r degau.

Ceir wneud hyn mwy nag
unwaith.

Dangos hyn fel yn y
diagram.



3 digid - 2 digid


$$\begin{array}{r} \cancel{89}128 \\ - 367 \\ \hline 561 \end{array}$$

Start on the right..

If the unit is less on top than the bottom. 'Borrow' from the tens.

You can do this more than once.

Show this as the diagram shows.



3 digid - 3 digid

	8	4	7
-	6	1	2
	2	3	5

Sicrhau fod y rhif mwyaf ar y linell uchaf

Dechrau o'r dde

Tynnu'r rhif gwylod i ffwrdd o'r rhif top

Ateb rhwng y llinellau

Symud i'r chwith

Os ydych yn tynnu rhifau gyda fwy o ddigidau, dilynwch union yr un camau sydd wedi cael eu amlinellu



Os yw'r rhif top yn llai na'r rhif ar y gwylod; bydd angen 'menthyg' gan y rhif drws nesaf i'r chwith..

Felly bydd y rhif 'drws nesaf yn newid i fod un digid yn llai.

Yna, bydd y rhif sydd wedi'w 'fenthyg' yn gweithredu fel 'deg' ar gyfer y rhif sydd ei angen.

Os mae llawer o'r rhifau uchaf yn llai na'r gwylod, bydd rhaid 'menthyg' gan y digidau ar y chwith tan y cawn lwyddiant.

Mae pob 'menthyciad' yn dilyn yr un broses.

	7	4	7
-	6	8	2
	1	6	5

Rhif mwyaf ar y linell uchaf

Dechrau o'r dde

Tynnu'r rhif gwylod i ffwrdd o'r rhif uchaf

Ateb rhwng y llinellau

Symud i'r chwith



	7	9	12
-	2	8	4
	5	1	8

Rhif mwyaf ar y linell uchaf

Dechrau o'r dde

Tynnu'r rhif gwylod i ffwrdd o'r rhif uchaf

Ateb rhwng y llinellau

Symud i'r chwith

3 digit - 3 digit

	8	4	7
-	6	1	2
	2	3	5

Ensure the highest number is on the highest line.

Start on the right.

Take away the bottom number away from the top.

Answer between the lines.

Move to the left.

If you are taking away numbers with more digits, follow the exact same steps outlined.



If the number on top is less than the number on the bottom you will need to borrow from the number next to it on the left.

So the number next door will change to be one less.

Then the number 'borrowed' will act like a ten for the number that needs it.

If many of the top numbers are less than the bottom numbers you will need to 'borrow' from the digits on the left until it works out.

Every 'borrowing' follows the same process.

	8 ⁷	4	7
-	6	8	2
	1	6	5

Ensure the highest number is on the highest line.

Start on the right.

Take away the bottom number away from the top.

Answer between the lines.

Move to the left



	8 ⁷	0 ⁹	2
-	2	8	4
	5	1	8

Ensure the highest number is on the highest line.

Start on the right.

Take away the bottom number away from the top.

Answer between the lines.

Move to the left

Tynnu gydag unedau amrywiol

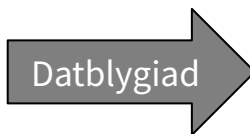
Wrth dynnu rhifau sydd â gwahanol unedau, mae'n bwysig ein bod yn eu gosod o fewn y colofnau unedau cywir. Fel arall, gall yr uned 7 gael ei adio fel 70 ar ddamwain fel y gweler isod.

$$98 - 7 =$$

	D	U
	9	8
-	7	
	2	8



	D	U
	9	8
-		7
	9	1

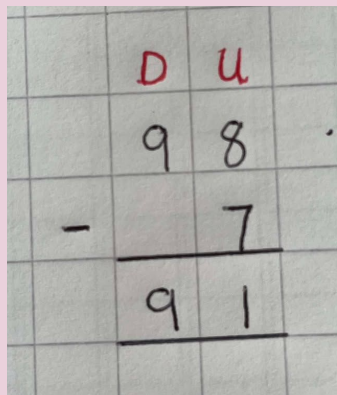
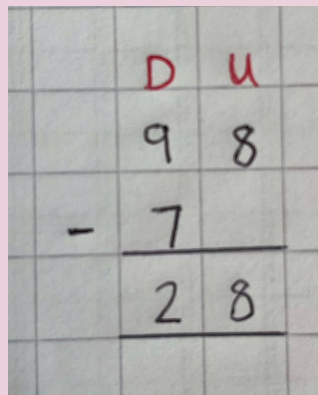


	M	C	D	U
	1	4	6	7
-		2	3	1
	1	2	3	6

Subtraction with various units

By subtracting numbers with different units, it's important that we place them in the correct columns. Otherwise the unit 7 could be added as 70 incorrectly as shown below.

$$98 - 7 =$$



	M	C	D	U
	1	4	6	7
-		2	3	1
	1	2	3	6

Tynnu gyda phwynt degol

$$\begin{array}{r} 38.9 \\ - 26.7 \\ \hline 12.2 \end{array}$$

Sicrhau fod y rhif mwyaf ar y linell uchaf

Dechrau o'r dde

Tynnu'r rhif gwylod i ffwrdd o'r rhif uchaf

Ateb rhwng y llinellau

Symud i'r chwith

Os ydych yn tynnu rhifau gyda fwy o ddigidau, dilynwch union yr un camau sydd wedi cael eu amlinellu



Os yw'r rhif ar y linell uchaf yn llai na'r rhif ar y gwylod; bydd angen 'menthyg' gan y rhif drw nesaf i'r chwith..

Felly bydd y rhif 'drws nesaf' yn newid i fod un digid yn llai.

Yna, bydd y rhif sydd wedi'w 'fenthyg' yn gweithredu fel 'deg' ar gyfer y rhif sydd ei angen.

Os nad oes unedau hafal, ychwanegwch sero i'r bylchau.

$$\begin{array}{r} 64.12 \\ - 21.7 \\ \hline 42.5 \end{array}$$

Rhif mwyaf ar y linell uchaf

Dechrau o'r dde

Tynnu'r rhif gwylod i ffwrdd o'r rhif uchaf

Ateb rhwng y llinellau

Symud i'r chwith



$$\begin{array}{r} 146.\overset{6}{\cancel{7}}0 \\ - 32.36 \\ \hline 114.34 \end{array}$$

Rhif mwyaf ar y linell uchaf

Dechrau o'r dde

Ychwanegu sero i unrhyw fylchau

Tynnu'r rhif gwylod i ffwrdd o'r rhif uchaf

Ateb rhwng y llinellau

Gosod y pwynt degol o fewn yr ateb

Subtracting with a decimal point

Ensure the highest number is on the highest line.

Start on the right.

Take away the bottom number away from the top.

Answer between the lines.

Move to the left

$$\begin{array}{r} 38.9 \\ - 26.7 \\ \hline 12.2 \end{array}$$

If you take away numbers will more digits follow the exact same steps outlined.

Progression

If the number of the top line is less than the number on the bottom you will need to 'borrow' from the number on the left.

Sp the number 'next door' will change to be one less.

Then the number borrowed will act as 'ten' for the number required.

If the units are not equal add a zero to the box.

$$\begin{array}{r} 146.\overset{6}{\cancel{7}}0 \\ - \quad 32.36 \\ \hline 114.34 \end{array}$$

$$\begin{array}{r} 6\overset{3}{\cancel{4}}12 \\ - 21.7 \\ \hline 42.5 \end{array}$$

Progression

Ensure the highest number is on the highest line.

Start on the right.

Take away the bottom number away from the top.

Answer between the lines.

Move to the left

Ensure the highest number is on the highest line.

Start on the right.

Take away the bottom number away from the top.

Answer between the lines.

Move to the left



Lluosi/Multiply

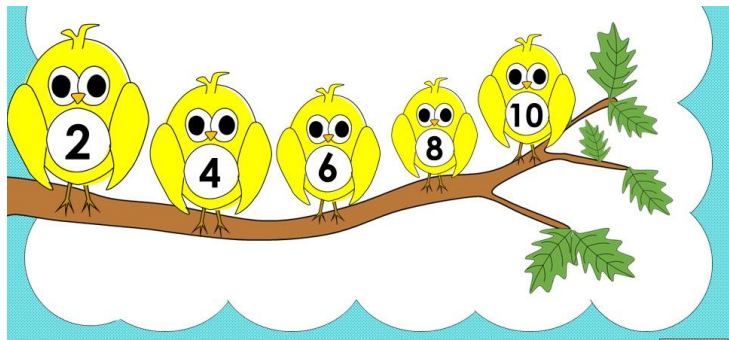


Sut mae dysgu 'lluosi' yn edrych yn ein dosbarthiadau.

How does our teaching of 'multiplication' look in our classrooms.

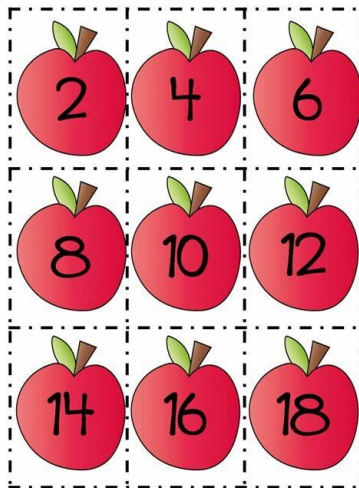
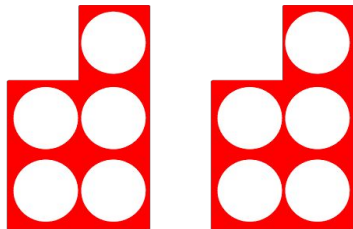
1 digid x 1 digid

Sgiliau lluosu cynnar
- cyftri fesul 2, 5 a 10

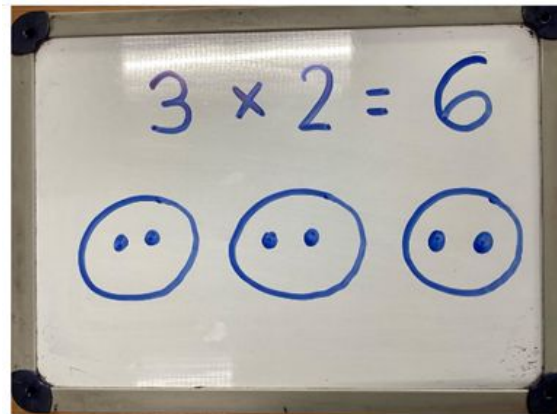
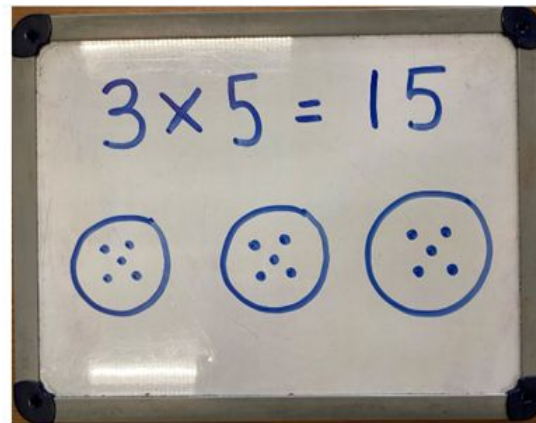


Defnyddio platiau
numicon

$$2 \times 5 = 10$$

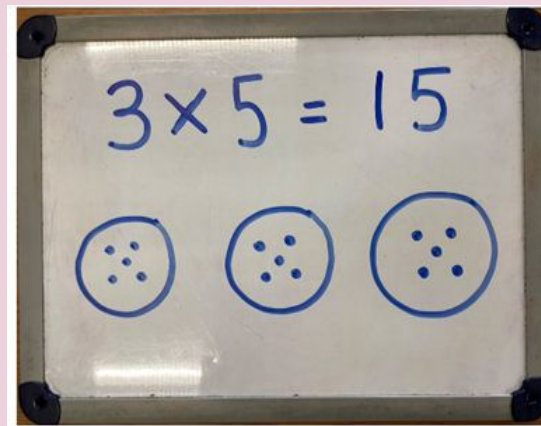
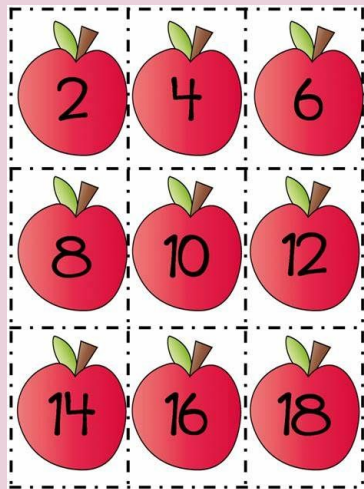
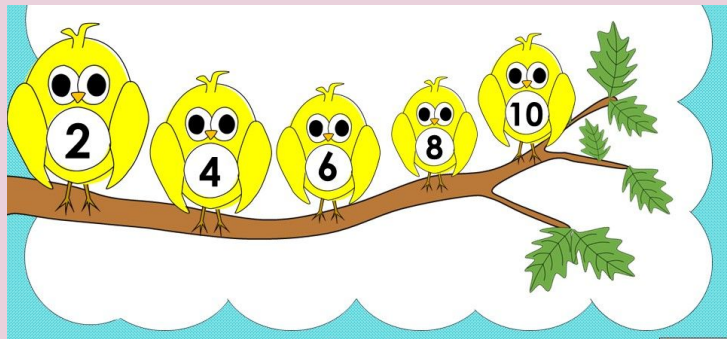


Defnyddio
cylchoedd a
smotiau
yna eu cyftri
i gael y
cyfanswm.



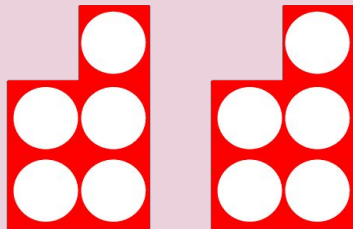
1 digit x 1 digit

Early multiplication skills - count in 2's, 5's and 10's, then arrange numbers in 2's, 5's and 10's

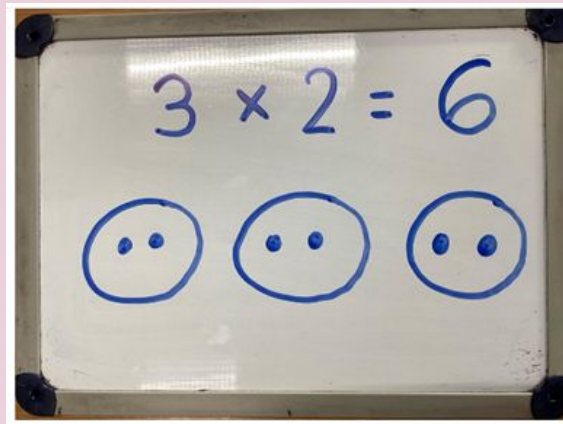


Use Numicon plates

$$2 \times 5 = 10$$



Use circles and spots. Count them to get the correct amount.



2 digid x 1 digid

Dechrau llafarganu tablau er mwyn eu cofio

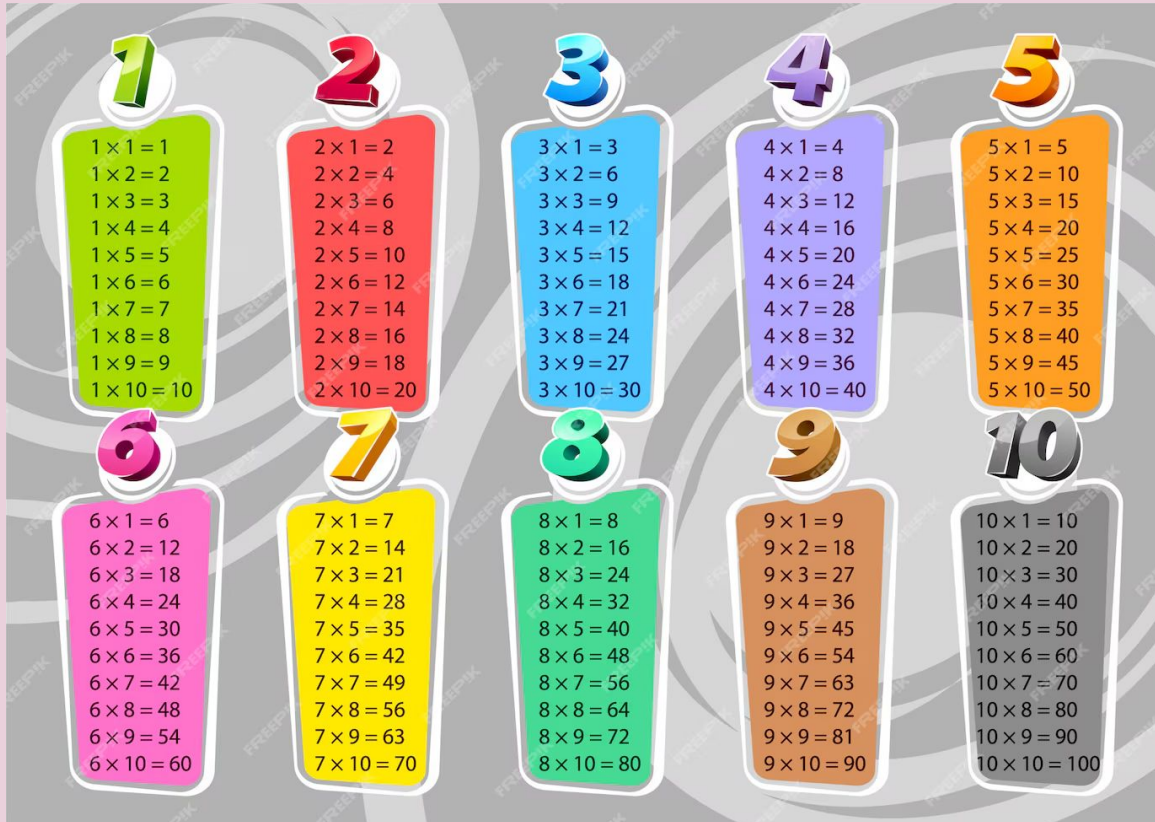
1 $1 \times 1 = 1$ $1 \times 2 = 2$ $1 \times 3 = 3$ $1 \times 4 = 4$ $1 \times 5 = 5$ $1 \times 6 = 6$ $1 \times 7 = 7$ $1 \times 8 = 8$ $1 \times 9 = 9$ $1 \times 10 = 10$	2 $2 \times 1 = 2$ $2 \times 2 = 4$ $2 \times 3 = 6$ $2 \times 4 = 8$ $2 \times 5 = 10$ $2 \times 6 = 12$ $2 \times 7 = 14$ $2 \times 8 = 16$ $2 \times 9 = 18$ $2 \times 10 = 20$	3 $3 \times 1 = 3$ $3 \times 2 = 6$ $3 \times 3 = 9$ $3 \times 4 = 12$ $3 \times 5 = 15$ $3 \times 6 = 18$ $3 \times 7 = 21$ $3 \times 8 = 24$ $3 \times 9 = 27$ $3 \times 10 = 30$	4 $4 \times 1 = 4$ $4 \times 2 = 8$ $4 \times 3 = 12$ $4 \times 4 = 16$ $4 \times 5 = 20$ $4 \times 6 = 24$ $4 \times 7 = 28$ $4 \times 8 = 32$ $4 \times 9 = 36$ $4 \times 10 = 40$	5 $5 \times 1 = 5$ $5 \times 2 = 10$ $5 \times 3 = 15$ $5 \times 4 = 20$ $5 \times 5 = 25$ $5 \times 6 = 30$ $5 \times 7 = 35$ $5 \times 8 = 40$ $5 \times 9 = 45$ $5 \times 10 = 50$
6 $6 \times 1 = 6$ $6 \times 2 = 12$ $6 \times 3 = 18$ $6 \times 4 = 24$ $6 \times 5 = 30$ $6 \times 6 = 36$ $6 \times 7 = 42$ $6 \times 8 = 48$ $6 \times 9 = 54$ $6 \times 10 = 60$	7 $7 \times 1 = 7$ $7 \times 2 = 14$ $7 \times 3 = 21$ $7 \times 4 = 28$ $7 \times 5 = 35$ $7 \times 6 = 42$ $7 \times 7 = 49$ $7 \times 8 = 56$ $7 \times 9 = 63$ $7 \times 10 = 70$	8 $8 \times 1 = 8$ $8 \times 2 = 16$ $8 \times 3 = 24$ $8 \times 4 = 32$ $8 \times 5 = 40$ $8 \times 6 = 48$ $8 \times 7 = 56$ $8 \times 8 = 64$ $8 \times 9 = 72$ $8 \times 10 = 80$	9 $9 \times 1 = 9$ $9 \times 2 = 18$ $9 \times 3 = 27$ $9 \times 4 = 36$ $9 \times 5 = 45$ $9 \times 6 = 54$ $9 \times 7 = 63$ $9 \times 8 = 72$ $9 \times 9 = 81$ $9 \times 10 = 90$	10 $10 \times 1 = 10$ $10 \times 2 = 20$ $10 \times 3 = 30$ $10 \times 4 = 40$ $10 \times 5 = 50$ $10 \times 6 = 60$ $10 \times 7 = 70$ $10 \times 8 = 80$ $10 \times 9 = 90$ $10 \times 10 = 100$

Defnyddio olwynion luosi



2 digit x 1 digit

Start reciting time tables in order to remember them.



Use multiplication wheels



Dull Lluosi Napier



Gallai'r dull yma weithio ar gyfer unrhyw nifer o ddigidau felly addaswch fel y mynnwch.

	2	4	X
			3

Cam 1:
Gosod y rhifau fel bod un rhif i bob bocs ar draws ac am i lawr.

Cam 2:
Gosod llinellau lletraws o gornel dde pob bocs hyd at cornel gwybod chwith y bocs.

	2	4	X
		1	
		2	3

Cam 3:
Lluosi'r rhifau at ei gilydd gan gymryd fod pob rhif yn uned.

Cam 4:
Gosod yr ateb bob ochr i'r llinell lletraws.

Cam 5:
Sicrhau bod un uned i bob triongl bach.

	2	4	X
	0	1	
	6	2	3

	2	4	X
0	0	1	
	6	2	3
	7	2	

Cam 6:
Ychwanegu'r cyfanswm ar hyd y llinellau lletraws.

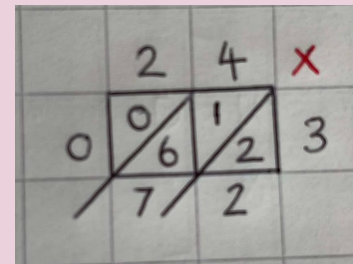
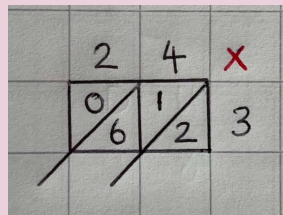
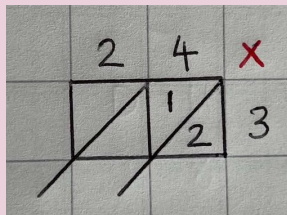
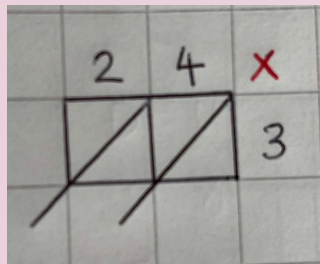
Cam 7:
Os mae'r cyfanswm ar hyd y llinellau lletraws yn fwy na 9; bydd rhaid cario'r deg i'r golofn nesaf.

**Ond cofiwch, rydych yn adio'r 'deg' fel uned; felly 1.

Multiplication Napier Method



This method can work for any amount of digits so you can adapt as necessary.



Step 1:
Place numbers so that each box has a number across and downwards.

Step 2:
Draw lines across from the right corner of each box to the bottom left corner.

Step 3:
Multiply the numbers treating each number as units.

Step 4:
Place the answer either side of the line.

Step 5:
Ensure each small triangle has a unit.

Step 6:
Place the amount at the bottom.

Step 7:
If the amount is more than 9 you will need to carry the ten to the next column.

**But remember you will add the 'ten' as a unit so 1.

Dull lluosï hir

$$\begin{array}{r} 342 \\ \times 2 \\ \hline \end{array}$$

Cam 1:
Gosod y rhifau fel bod un rhif i bob bocs o dan ei gilydd

Cam 2:
Bydd angen lluosï pob uned yn unigol.

Cam 3:
Dechreuwch gyda'r uned fwyaf a gweithiwch eich ffordd i lawr i'r uned leiaf.

$$\begin{array}{r} 342 \\ \times 2 \\ \hline 600 \text{ (300 x 2)} \\ 80 \text{ (40 x 2)} \\ + 4 \text{ (2 x 2)} \\ \hline \end{array}$$

Cam 4:
Cofiwch: Os mae $3 \times 4 = 12$. Bydd $30 \times 4 = 120$ a $300 \times 4 = 1200$.

Cam 5:
Ysgrifennwch yr atebion o dan ei gilydd gan gofio am y colofnau unedau.

Cam 6:
Ychwanegwch y symbol +

Gallai'r dull yma weithio ar gyfer unrhyw nifer o ddigidau felly addaswch fel y mynnwch.

$$\begin{array}{r} 342 \\ \times 2 \\ \hline 600 \text{ (300 x 2)} \\ 80 \text{ (40 x 2)} \\ + 4 \text{ (2 x 2)} \\ \hline 684 \end{array}$$

Cam 7:
Bydd angen adio cyfanswm y symiau lluosï rydych newydd eu gwneud.

Dilynwch yr un drefn ag adio fertigol sydd wedi'w esbonio i chi eisoes yn y cyflwyniad



Long Multiplication Method

This method can be used for any number of digits.

A grid showing the numbers 342 and 2. The number 342 is written in the top row, and the number 2 is written in the bottom row. An 'x' symbol is placed to the left of the 2, and a horizontal line is drawn under the 2.

Step 1:
Place the numbers so that there is one number in each box under each other.

Step 2:
You will need to multiply each unit individually.

Step 3:
Start with the highest unit and work your way down to the lowest.

A grid showing the multiplication of 342 by 2. The number 342 is written in the top row, and the number 2 is written in the bottom row. An 'x' symbol is placed to the left of the 2, and a horizontal line is drawn under the 2. Below the line, the partial products are written: 600 (300 x 2), 80 (40 x 2), and 4 (2 x 2). A '+' symbol is placed to the left of the 4, and a horizontal line is drawn under the 4.

Step 4:
Remember: If $3 \times 4 = 12$. Then $30 \times 4 = 120$ or $300 \times 4 = 1200$.

Step 5:
Write the answers under each other and don't forget about the unit column.

Step 6:
Insert the symbol +

A grid showing the addition of the partial products from the previous steps. The number 342 is written in the top row, and the number 2 is written in the bottom row. An 'x' symbol is placed to the left of the 2, and a horizontal line is drawn under the 2. Below the line, the partial products are written: 600 (300 x 2), 80 (40 x 2), and 4 (2 x 2). A '+' symbol is placed to the left of the 4, and a horizontal line is drawn under the 4. Below the line, the sum 684 is written.

Step 7:
You will need to add the total of the multiplication sums you have made.

Follow the same adding method explained earlier.



x10, x100, x1000

$146 \times 10 = 1460$

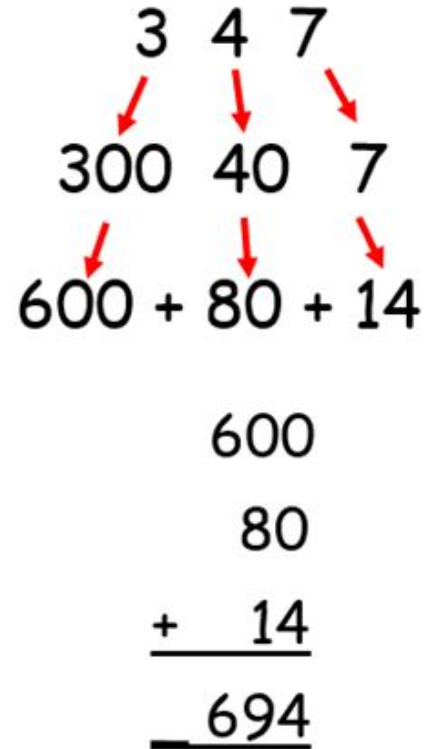
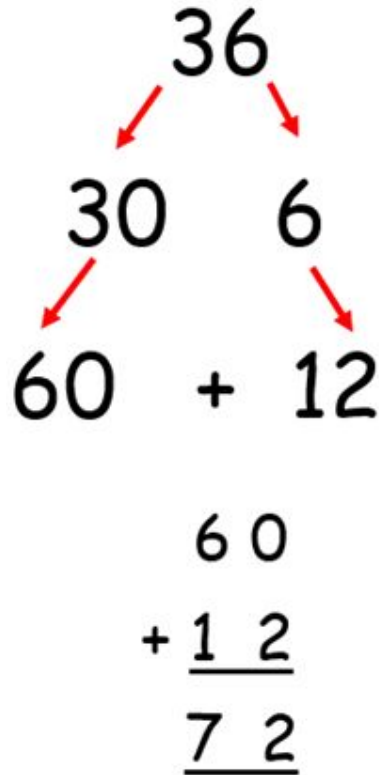
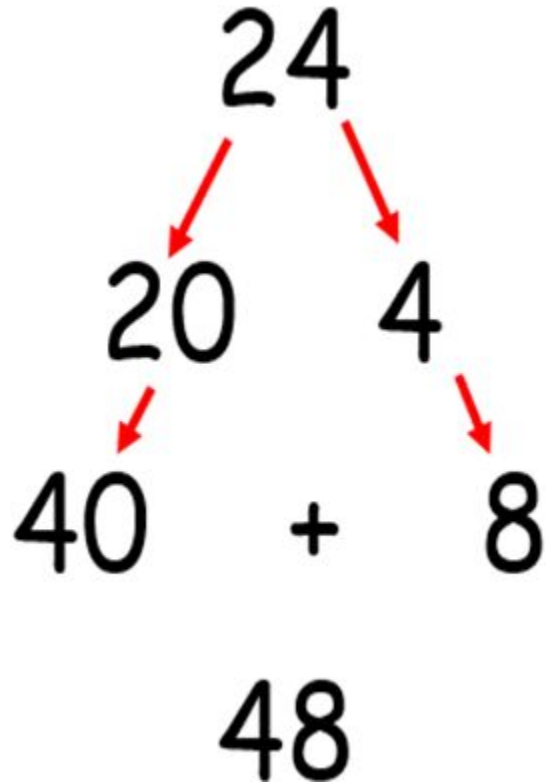
M	C	D	U
1	4	6	0

$146 \times 1000 = 146,000$

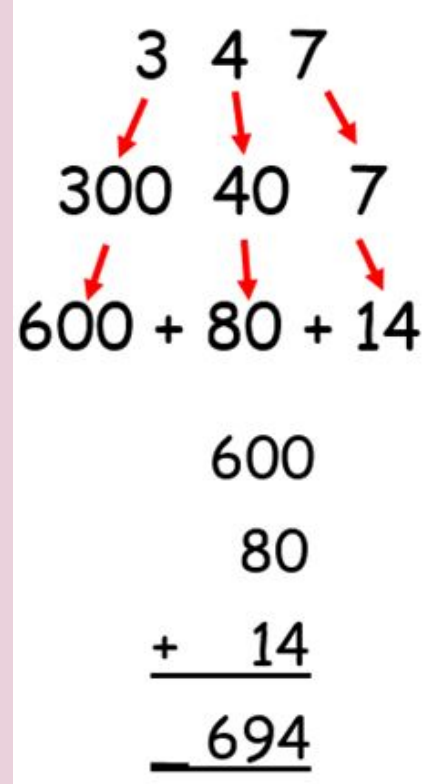
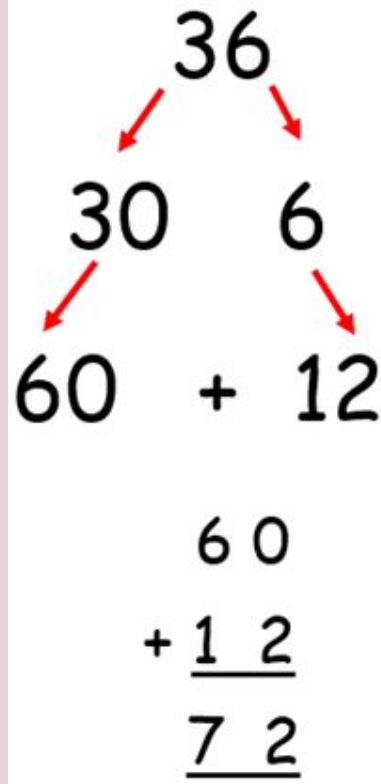
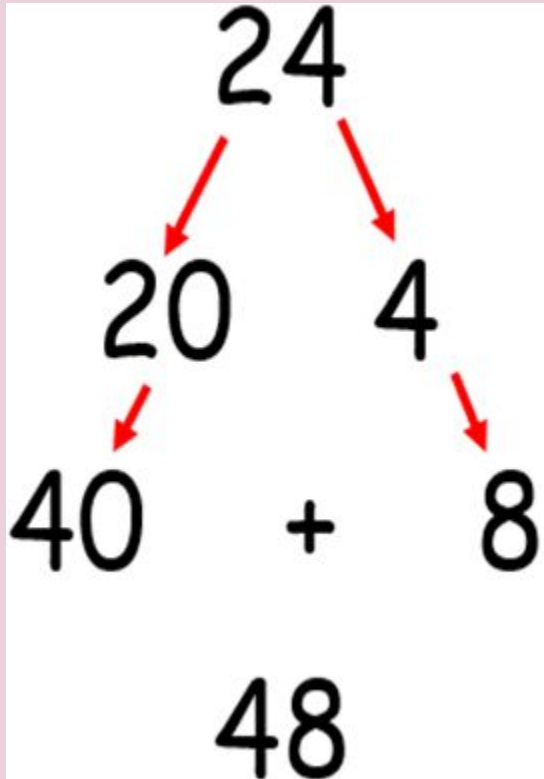
CM	DM	M	C	D	U
1	4	6	0	0	0

Os mae un sero
mewn 10; rydych yn
symud y rhifau i fyny
unwaith. Os mae dau
sero mewn 100;
rydych yn symud y
rhifau fyny dwy waith
ayyb.

Dwbl Cannoedd Degau Ac Unedau

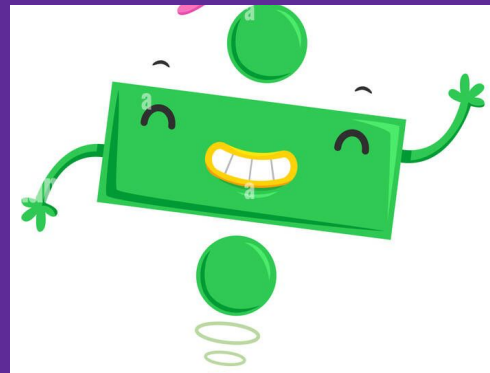


Double Hundreds, Tens and Units





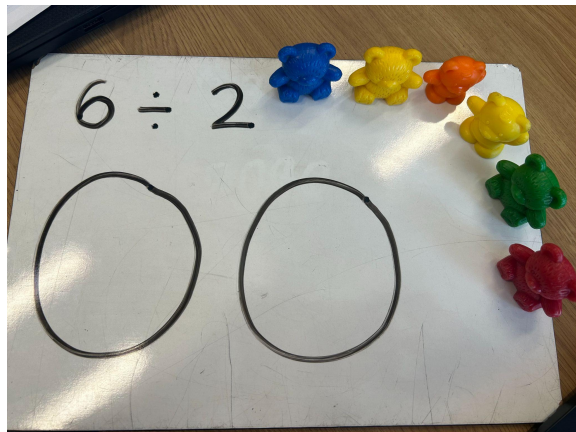
Rhannu/Division



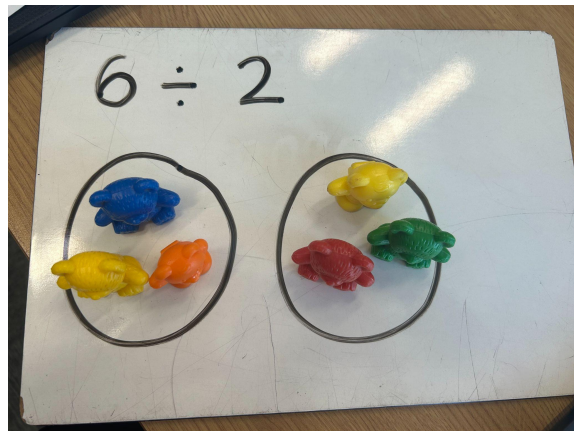
Sut mae dysgu 'rhannu' yn edrych yn ein dosbarthiadau.

How does our teaching of 'division' look in our classrooms.

Rhannu

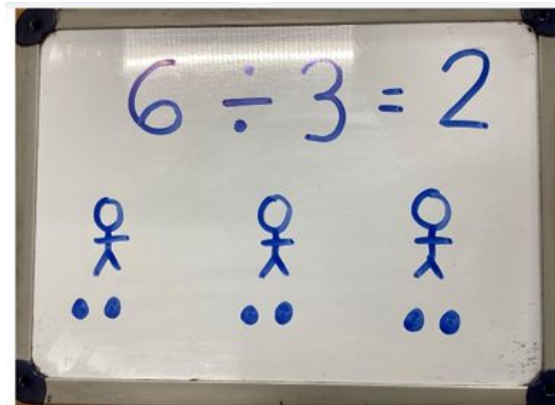
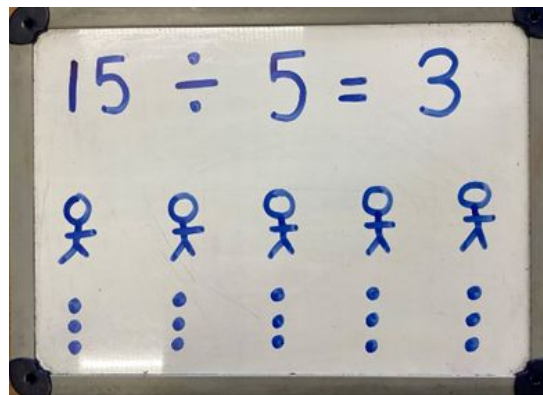
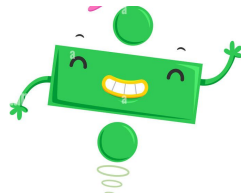


Defnyddio
gwrthrychau
a cylchoedd.

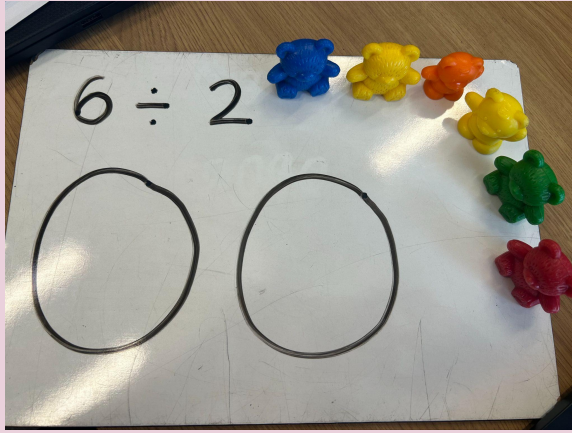


Defnyddio
byrddau
gwyn a
smotiau.

6 rhannu gyda 2
yn hafal i

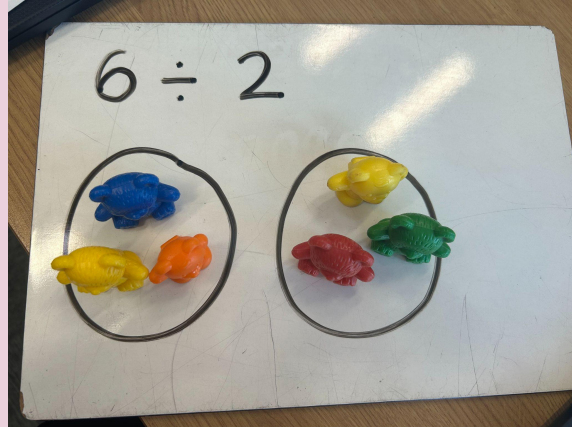


Division

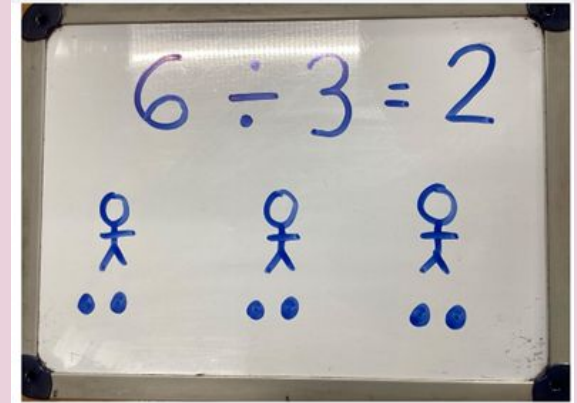
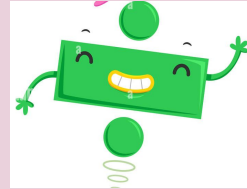
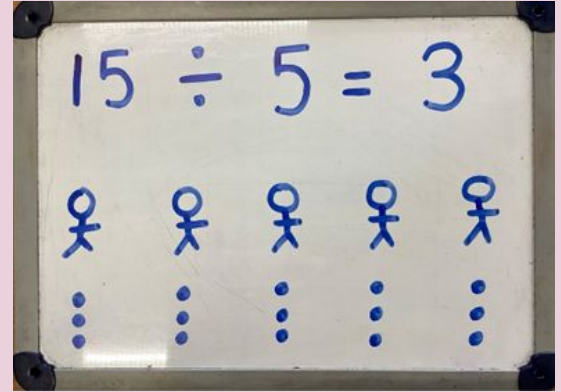


6 divide by 2
equals

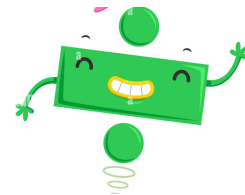
Use objects
and circles.



Use white
boards and
spots.



Rhannu hir



Cam 1

$$\begin{array}{r} 21 \\ 4 \overline{) 84} \end{array}$$

$$84 \div 4$$

Yma, rydym
yn edrych ar
y degau fel
unedau.

Felly $8 \div 4$ sef
2 ac yna $4 \div 4$
sef 1.

Cam 2

$$\begin{array}{r} 23 \\ 3 \overline{) 72} \end{array}$$

$$72 \div 3$$

Yma, nid yw 7 yn
nhabl 3; felly
rydym yn rhannu
gyda 6 yn lle (ac
yna nodi bod 1
dros ben a'i gario
at y rhif nesaf; sy'n
gwnud 12.

Cam 3

$$\begin{array}{r} 030g3 \\ 5 \overline{) 153} \end{array}$$

$$153 \div 5$$

Yma, nid yw'r rhif
olaf yn rhannu'n
berffaith; felly,
rydym yn nodi'r
hyn sy'n weddill
gyda 'g3'.

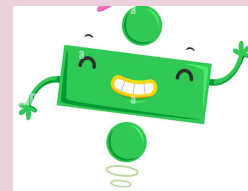
Cam 4

$$\begin{array}{r} 030.6 \\ 5 \overline{) 153.0} \end{array}$$

$$153 \div 5$$

Yma, yn hytrach na
ysgrifennu 'g3'
rydym yn cario'r
gweiddill drosodd
at y pwynt degol.

Long Division



Step 1

$$\begin{array}{r} 21 \\ 4 \overline{) 84} \end{array}$$

$$84 \div 4$$

Here we look at the tens as units. So $8 \div 4$ is 2 and then $4 \div 4$ is 1.

Step 2

$$\begin{array}{r} 23 \\ 3 \overline{) 72} \\ \underline{6} \\ 12 \end{array}$$

$$72 \div 3$$

Here, 7 is not in the 3 times table so we divide it by 6 instead (and note that there is 1 over to carry to the next number which makes 12.

Step 3

$$\begin{array}{r} 30 \\ 5 \overline{) 153} \\ \underline{15} \\ 3 \end{array}$$

$$153 \div 5$$

Here the last number does not divide perfectly so, we note what is left with 'g3'.

Step 4

$$\begin{array}{r} 30.6 \\ 5 \overline{) 153.0} \\ \underline{15} \\ 30 \end{array}$$

$$153 \div 5$$

Here, rather than write yn 'g3' we carry what is left over to the decimal point.

÷10, ÷100, ÷1000

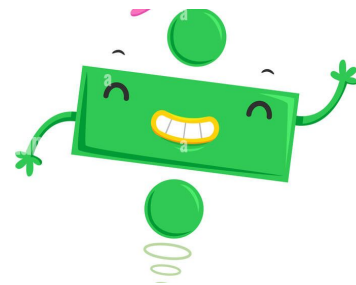
M	C	D	U
1	8	3	0
	1	8	3

$1830 \div 10 = 183$

M	C	D	U
1	8	0	0
		1	8

$1800 \div 100 = 18$

Os oes un sero
mewn 10; rydych yn
symud y rhifau i lawr
unwaith. Os oes dau
sero mewn 100;
rydych yn symud y
rhifau i lawr dwy
waith ayyb.



$\div 10$, $\div 100$, $\div 1000$

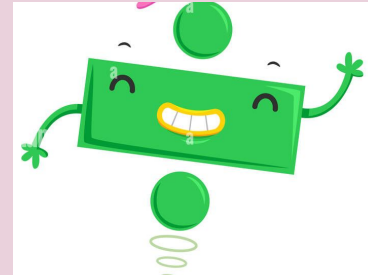
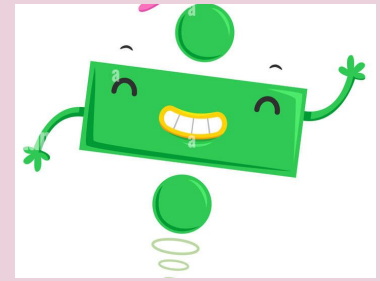
M	C	D	U
1	8	3	0
	1	8	3

$1830 \div 10 = 183$

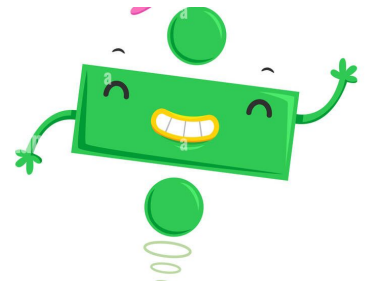
M	C	D	U
1	8	0	0
		1	8

$1800 \div 100 = 18$

If there is one zero in 10; you move the numbers down once. If there is two zeros in 100; you move the numbers down twice etc.



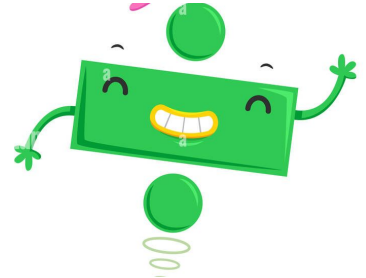
$\div 10$, $\div 100$, $\div 1000$ (Degolion)



M	C	D	U	• Degolyn
1	3	4	7	
	1	3	4	• 7

$1347 \div 10 = 134.7$

Os oes un sero
mewn 10; rydych yn
symud y rhifau i
lawr unwaith. Os
oes dau sero
mewn 100; rydych
yn symud y rhifau i
lawr dwy waith
ayyb.

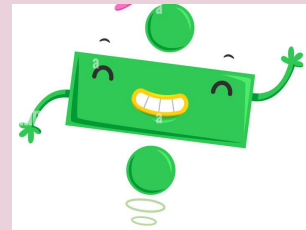
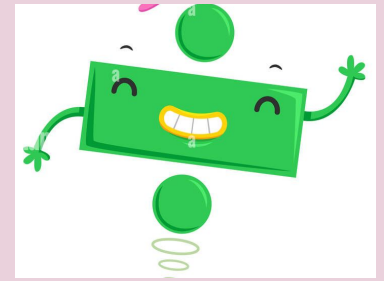


$\div 10$, $\div 100$, $\div 1000$ (Degolion)

M	C	D	U	• Degolyn
1	3	4	7	
	1	3	4	• 7

$1347 \div 10 = 134.7$

Os mae un sero mewn 10; rydych yn symud y rhifau i lawr unwaith. Os mae dau sero mewn 100; rydych yn symud y rhifau i lawr dwy waith ayyb.

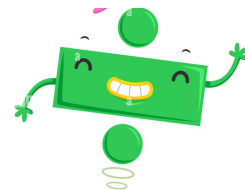


Hanner Cannoedd Degau Ac Unedau

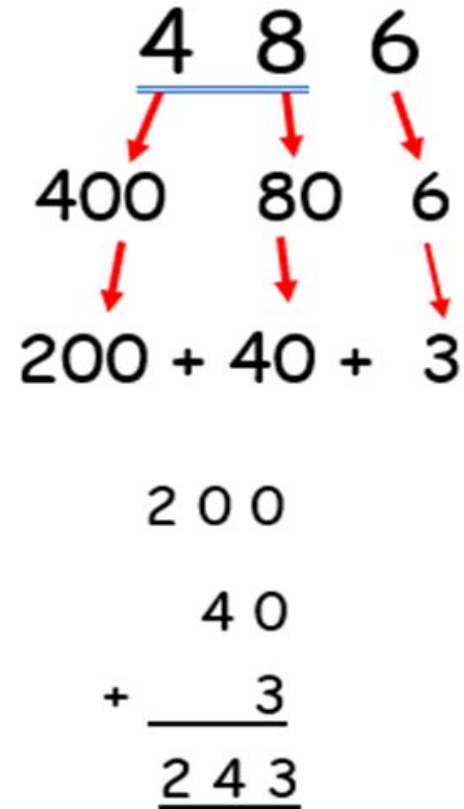
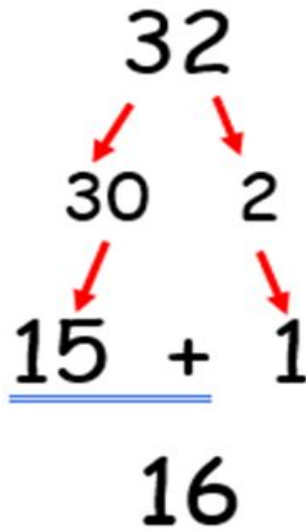
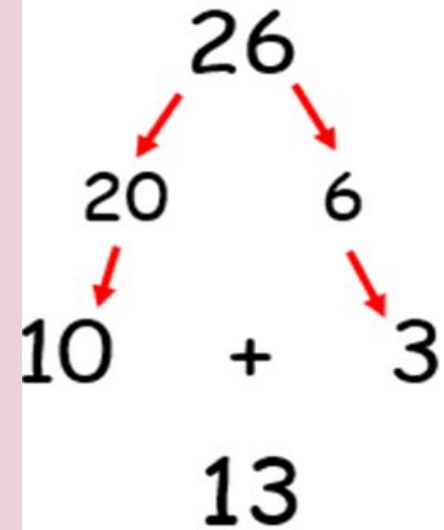
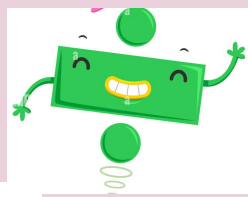
$$\begin{array}{ccccc} & 26 & & & \\ & \swarrow \searrow & & & \\ 20 & & 6 & & \\ \swarrow \searrow & & \swarrow \searrow & & \\ 10 & + & 3 & & \\ & 13 & & & \end{array}$$

$$\begin{array}{ccccc} & 32 & & & \\ & \swarrow \searrow & & & \\ 30 & & 2 & & \\ \swarrow \searrow & & \swarrow \searrow & & \\ \underline{15} & + & 1 & & \\ & 16 & & & \end{array}$$

$$\begin{array}{ccccc} & \underline{4} & \underline{8} & 6 & \\ & \swarrow \searrow & \swarrow \searrow & \swarrow \searrow & \\ 400 & & 80 & & 6 \\ \swarrow \searrow & & \swarrow \searrow & & \swarrow \searrow \\ 200 & + & 40 & + & 3 \\ & 200 & & & \\ & 40 & & & \\ + & \underline{3} & & & \\ & \underline{243} & & & \end{array}$$



Half Hundreds, Tens and Units



Tablau/Times Tables

Cychwyn gyda tablau 2,5 a 10 yna ychwanegu y rhai eraill fel mae'r dysgwyr yn barod.
Mae disgwyl i'r dysgwyr wybod eu tablau o 2 hyd at 12.

We start by implementing 2,5 and 10 times tables and then introduce the others as and when the learners are ready. We expect our learners to know their tables from 2 up to 12.



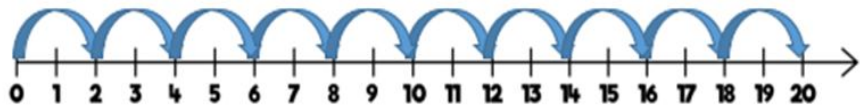
Tabl 2, 5 a 10

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Eilrifau - Gorffen gyda 0, 2, 4, 6, 8



2 4 6 8 10



X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Dechrau
drwy gyfrif
fesul?

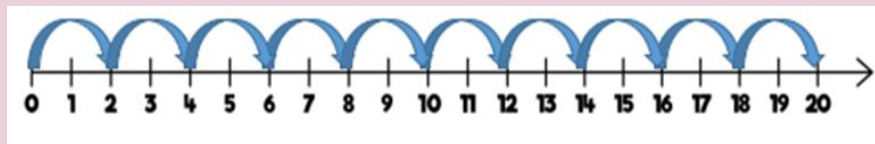
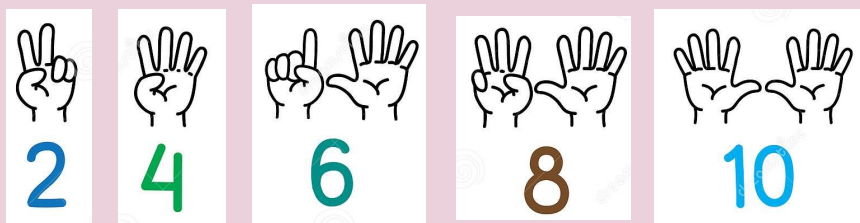
Defnyddio
adnoddau
i helpu i
weld y
patrymau

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Tables 2, 5 a 10

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Learn even numbers finish with 0, 2, 4, 6, 8



X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Start counting in (pick a number)

Use resources to see the patterns

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

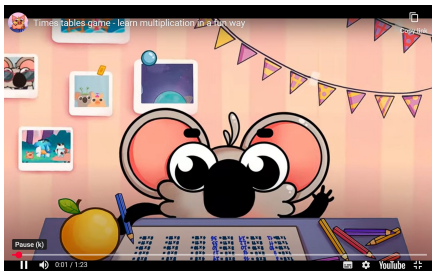
X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Rydym yn llafarganu ein tablau er mwyn eu cofio.

We say our timetables out loud to remember them.

1 = 1	2 x 1 = 2	3 x 1 = 3	4 x 1 = 4	5 x 1 = 5	6 x 1 = 6
2 = 2	2 x 2 = 4	3 x 2 = 6	4 x 2 = 8	5 x 2 = 10	6 x 2 = 12
3 = 3	2 x 3 = 6	3 x 3 = 9	4 x 3 = 12	5 x 3 = 15	6 x 3 = 18
4 = 4	2 x 4 = 8	3 x 4 = 12	4 x 4 = 16	5 x 4 = 20	6 x 4 = 24
5 = 5	2 x 5 = 10	3 x 5 = 15	4 x 5 = 20	5 x 5 = 25	6 x 5 = 30
6 = 6	2 x 6 = 12	3 x 6 = 18	4 x 6 = 24	5 x 6 = 30	6 x 6 = 36
7 = 7	2 x 7 = 14	3 x 7 = 21	4 x 7 = 28	5 x 7 = 35	6 x 7 = 42
8 = 8	2 x 8 = 16	3 x 8 = 24	4 x 8 = 32	5 x 8 = 40	6 x 8 = 48
9 = 9	2 x 9 = 18	3 x 9 = 27	4 x 9 = 36	5 x 9 = 45	6 x 9 = 54
10 = 10	2 x 10 = 20	3 x 10 = 30	4 x 10 = 40	5 x 10 = 50	6 x 10 = 60
11 = 11	2 x 11 = 22	3 x 11 = 33	4 x 11 = 44	5 x 11 = 55	6 x 11 = 66
12 = 12	2 x 12 = 24	3 x 12 = 36	4 x 12 = 48	5 x 12 = 60	6 x 12 = 72



Defnyddio apiau a gemau ar lein Use apps or online games

Elfennau Eraill/Other Elements

Arian/Money

Amser/Time

Trin
Data/Data

Ffracsiynau/
Fractions

Talgrynnu/
Round off

Siap/Shape

Onglau/
Angles

Cyfartaledd/
Averages

Cyfeiriannu/
Orientation

Amcangyfrif/
Estimate

Rhesymu/
Reasoning

Mesur/
Measuring



Sut i gefnogi adref / How to support at home

Cyfri gyda'ch plentyn
ar bob cyfle adref
e.e. grisiau, camau,
teganau, bwyd,
sanau, esgidiau ayyb

*Count with your child at
every opportunity e.g.
stairs, steps, toys, food,
socks, shoes etc*

Cyfri gyda'ch plentyn
yn y car e.e. Sawl car
sydd yn mynd heibio,
sawl coeden, sawl
arwydd ayyb

*Count with your child in
the car e.e. Count the
cars that go past,
count trees, signs etc*

Cyfri yn yr awyr iach
e.e. Sawl drws/tŷ,
sawl aderyn, sawl
blodyn ayyb

*Count outside e.g.
houses/doors, birds,
flowers etc*

Meithrin, Derbyn a Blwyddyn 1



Sut i gefnogi adref / How to support at home

Os yn ymarfer ffurfio rhifau adref - dilyn yr un drefn a'r ysgol.

If your child is practising their numbers at home - ensure they follow the same format as school (page 7).

Ymarfer bondiau rhif 10 a 20 e.e. $5+5$, $6+4$, $8+2$ ayyb

Practise number bonds to 10 and 20 e.g. $5+5$, $6+4$, $8+2$ etc

Cael hwyl wrth ddefnyddio rhifau!

Make numbers fun!

Meithrin, Derbyn a Blwyddyn 1



Sut i gefnogi adref / How to support at home

Ymarfer eu tablau yn aml, llafarganu hefo nhw e.e. 'mae 2 lluosgi gyda 2 yn hafal i ?'

Practice their times tables with them often, sing or chant e.e. 2 multiply by 2 makes ?



Blwyddyn 2 a 3

Datrys problemau gyda nhw yn eu bywyd pob dydd - e.e. os oes gen i 6 darn o afal ac angen ei rannu gyda ti a dy frawd, sawl darn gewch chi yr un?

Take every opportunity for your child to solve everyday problems e.g. I have 6 pieces of apple to share between you and your brother. How many pieces do you get each?

Trafod yr amser gyda nhw, dysgu edrych ar y cloc faint o'r gloch, sawl munud sydd tan, beth fydd yr amser mewn awr ayyb

Discuss the time with them at home, look at the clock what time is it, how many minutes until, what time will it be in an hour etc



Sut i gefnogi adref / How to support at home

Ymarfer eu tablau yn aml, ar ffurf lafarganu syml: h.y. “

Un dau; dau.

Dau dau; pedwar”

Cwestiynnu tablau yn ar-hap.

Cyflwyno swm gwrthdro ee.
Beth sydd angen ei luosi gyda 5 er mwyn gwneud 20?

Ymarfer y berthynas rhwng y berthynas rif; ee.

$3 \times 7 = 21$	$21 \div 7 = 3$
$30 \times 7 = 210$	$210 \div 7 = 30$
$300 \times 7 = 2100$	$2100 \div 7 = 300$

Practise their timetables often by saying them outloud.

Ask random timetable questions e.g. what is 8×5

Ask opposite questions e.g. what do I need to multiply by 5 to get 20?

Practise the connection between the numbers e.g.

$3 \times 7 = 21$	$21 \div 7 = 3$
$30 \times 7 = 210$	$210 \div 7 = 30$
$300 \times 7 = 2100$	$2100 \div 7 = 300$

Topmarks
Maths

TT Rockstars

You tube for
kids



Blwyddyn 4, 5 a 6

Os oes ganddoch unrhyw gwestiwn am y ddogfen hon mae croeso ichi gysylltu a ni

If you have any questions in relation to this document you are more than welcome to contact us.

1.

