Maths for week beginning 11th January
Please complete the daily work and send a copy/picture to your teacher.

5L Miss Langoo at elangoo@.kingsavenue.lambeth.sch.uk

4/5/W Mrs Williams (formally Duke) at jduke@.kingsavenue.lambeth.sch.uk

Monday

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

## January

12 Times tables

$$
\begin{aligned}
12 \times 0 & = \\
12 \times 1 & =12 \\
12 \times 2 & =24 \\
12 \times 3 & =36 \\
12 \times 4 & =48 \\
12 \times 5 & =60 \\
12 \times 6 & =72 \\
12 \times 7 & =84 \\
12 \times 8 & =96 \\
12 \times 9 & =108 \\
12 \times 10 & =120 \\
12 \times 11 & =132 \\
12 \times 12 & =144
\end{aligned}
$$

## Arithmetic

1) What is the area of a square with a side length of 6 cm ?
2) What is $24 \times 3$ ?
3) Find the sum of $£ 1,250$ and $£ 3,940$
4) Write down a 4 -digit number with 3 in the hundreds column.
5) What is the area of a square with a side length of 6 cm ? $36 \mathrm{~cm}^{2}$
6) What is $24 \times 3$ ? 72
7) Find the sum of $£ 1,250$ and $£ 3,940$ £5।q0
8) Write down a 4 -digit number with 3 in the hundreds column.

LO: To multiply 4 digits by 2 digits

## Home learning video support if needed. Please click on link and watch video. https://www.youtube.com/watch?v=RVYwunbpMHA



Math Antics - Multi-Digit Multiplication Pt 2
4 M views $\cdot 8$ years ago
做, mathantics
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Subtitles

Strategy


Use <, > or = to make the statements correct.
$4,458 \times 56$
$4,458 \times 55$
$4,458 \times 55$
$4,523 \times 54$
$4,523 \times 54$
$4,522 \times 54$

## Mathematical Talk

Explain the steps followed when using this multiplication method.

Look at the numbers in each question, can they help you estimate which answer will be the largest?

Explain why there is a 9 in the thousands column.
Why do we write the larger number above the smaller number?
What links can you see between these questions? How can you use these to support your answers?

## TASK

Complete the multiplication.

(2) Tommy is calculating $1,234 \times 26$
a) Complete his working out.

b) Fill in the grid to check Tommy's working is accurate.

You may use place value counters to help.

| $\times$ | 1,000 | 200 | 30 | 4 |
| :---: | :---: | :---: | :---: | :---: |
| 20 |  |  |  |  |
| 6 |  |  |  |  |

Rosie is calculating $2,541 \times 42$

Here is Rosie's working.

$$
\begin{array}{lllll}
\times & & & 4 & 2 \\
\hline & 4, & 0 & 8 & 2 \\
& 8, & 0, & 6 & 4 \\
\hline 1 & 2 & 1 & 4 & 6 \\
\hline
\end{array}
$$

a) Rosie has made two mistakes. What are they?
b) What is the correct answer?



4
Work out the multiplications.
a) $4,284 \times 23$
b) $2,142 \times 46$


What do you notice?

A machine makes 2,734 boxes every hour.
The machine works for 3 hours each day.
a) How many boxes will it make in 12 days?
(7)

12

## 2



b) Compare methods with a partner. Were there any other ways you could have worked out the answer?
(6) Work out $378 \times 7 \times 12$

Show your method clearly


Amir scores 4,680 points in a computer game for 12 games in a row. Whitney scores 2,512 points every game for 24 games.

Who scores more points?

## Answers

(1)

Complete the multiplication.

2) Tommy is calculating $1,234 \times 26$ a) Complete his working out.

b) Fill in the grid to check Tommy's working is accurate. You may use place value counters to help.

| $\boldsymbol{x}$ | 1,000 | 200 | 30 | 4 |
| :---: | :---: | :---: | :---: | :---: |
| 20 | 20,000 | 4,000 | 600 | 80 |
| 6 | 6,000 | 1,200 | 180 | 24 |

Rosie is colculating $2,541 \times 42$
Here is Rosie's working.

$$
\begin{array}{ccccc}
\times & & & 4 & 2 \\
\hline & 4 & 0 & 8 & 2 \\
& (2,541 \times 2) \\
& 8 & 0 & 6 & 4 \\
\hline 1 & 2 & 1 & 4 & 6 \\
\hline
\end{array}
$$

a) Rosie has made two mistakes. What are they?

$$
\begin{aligned}
& \text { She haon't correctly exchanged } \\
& \text { She has multiplied by by not } 1.0
\end{aligned}
$$

b) What is the correct answer?


Work out the multiplications.


What do you notice?
(5) A machine makes 2,734 boxes every hour.

The mochine works for 3 hours each day
a) How many boxes will it make in 12 days?

a) Using all the digit cards, create 4 different calculations and work out the answer to each.
Variow anowers.
b) Write your answers in ascending order.
c) What is the smallest product that can be made?

B
Amir scores 4,680 points in a computer game for 12 games in a row. Whitney scores 2,512 points every game for 24 games.

$$
\begin{aligned}
& \text { Amir: } 56,160 \\
& \text { Whitney: } 60,288
\end{aligned}
$$



## Thinking Deeper

Can you spot and correct the errors in the calculation?

|  |  | 2 | 5 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\times$ |  |  |  | 2 | 3 |
|  |  | 7 | 5 | 9 | 2 |
|  |  | 5 | 0 | 6 | 8 |
|  | 1 | 2 | 6 | 6 | 0 |

There are 2 errors. In the first line of working, the exchanged ten has not been added. In the second line of working, the place holder is missing.
The correct
answer should be 58,282

Tuesday

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

12 Times tables

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\begin{aligned}
12 \times 0 & = \\
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12 \times 7 & =84 \\
12 \times 8 & =96 \\
12 \times 9 & =108 \\
12 \times 10 & =120 \\
12 \times 11 & =132 \\
12 \times 12 & =144
\end{aligned}
$$

I) What is $253 \times 3$ ?
2) Work out the area of the rectangle

5 cm
4 cm

3) What is $10^{2}$ ?
4) What is 100 more than 9,308 ?
I) What is $253 \times 3$ ? 759
2) Work out the area of the rectangle


## $20 \mathrm{~cm}^{2}$

3) What is $10^{2}$ ? $\quad 100$
4) What is 100 more than 9,308 ?

9408

LO: Divide 2-digits by 1-digit (1)


Please watch video for support https://vimeo.com/488870720



Jack is dividing 84 by 4 using place value counters.


First, he divides the tens.
Then, he divides the ones.


## Mathematical Talk

Use Jack's method to calculate:

$$
69 \div 3 \quad 88 \div 4 \quad 96 \div 3
$$

How can we partition 84 ?
How many rows do we need to share equally between?
If I cannot share the tens equally, what do I need to do?
How many ones will I have after exchanging the tens?
If we know $96 \div 4=24$, what will $96 \div 8$ be?
What will $96 \div 2$ be? Can you spot a pattern?

Dora is calculating $72 \div 3$
Before she starts, she says the calculation will involve an exchange.

Do you agree?
Explain why.
Dora is calculating $72 \div 3$
Before she starts, she says the calculation will involve an exchange.
Do you agree?
Explain why.

Dora is correct because 70 is not a multiple of 3 so when you divide 7 tens between 3 groups there will be one remaining which will be exchanged.

## TASK

Rosie is working out $93 \div 3$ using a place value chart.| Tens | Ones |
| :---: | :---: |
| 0 | 1 |
| 0 | 1 |
| 0 | 0 |

a) Talk about Rosie's method with a partner.
b) Complete the division.
Use place value counters to complete the divisions.
a) $66 \div 3=$ $\qquad$
d) $48 \div 4=$ $\square$
b) $86 \div 2=$ $\qquad$
e)

c) $50 \div 5=$ $\qquad$
f) $84 \div 4=$ $\qquad$Dexter is working out $56 \div 4$ using a place value chart.

a)


Do you agree with Dexter? $\qquad$
Explain your answer.
$\qquad$
b) Work out $56 \div 4$ using place value counters.
$56 \div 4=\square$Use place value counters to complete the divisions.
a) $72 \div 3=$
d) $48 \div 6=\square$
b) $92 \div 4=$e) $\square$ $=45 \div 3$
c) $65 \div 5=$
f) $64 \div 4=\square$Teddy is working out $57 \div 3$


How does Teddy know this? Talk about it with a partner.Amir is working out $68 \div 4$


$$
68 \div 4=17
$$

Talk about Amir's method with a partner.Use Amir's method to complete these calculations.
a) $42 \div 3=$

b) $96 \div 4=$ $\square$

c) $85 \div 5=$

d) $84 \div 6=$

(8)

Kim has 92 beads.
She wants to share them equally between 4 friends.
How many beads will each friend get?Write $<,>$ or $=$ to make the statements correct.


## Answers

Rosie is working out $93 \div 3$ using a place value chart.| Tens | Ones |
| :---: | :--- |
| $\bigcirc \bigcirc$ | 1 |
| $\bigcirc \bigcirc$ | $(1$ |
| $\bigcirc \bigcirc$ |  |

a) Talk about Rosie's method with a partner.
b) Complete the division.
$93 \div 3=31$
(2)

Use place value counters to complete the divisions.
a) $66 \div 3=22$
d) $48 \div 4=12$
b) $86 \div 2=43$
c) $50 \div 5=10$
e) $13=39 \div 3$
f) $84 \div 4=21$Dexter is working out $56 \div 4$ using a place value chart.

| $T$ | 0 |
| :--- | :---: |
| $\bigcirc$ | 1 |
|  | 1 |
|  | 1 |
| $\square$ | 1 |


a)


Do you agree with Dexter? No
Explain your answer.
He can exchangy. Iten for 10 anen.
b) Work out $56 \div 4$ using place value counters.

$$
56 \div 4=14
$$Use place value counters to complete the divisions.

a) $72 \div 3=24$
b) $92 \div 4=23$
c) $65 \div 5=13$
d) $48 \div 6=8$
e) $15=45 \div 3$
f) $64 \div 4=16$
(5)

Teddy is working out $57 \div 3$


How does Teddy know this? Talk about it with a partner.Amir is working out $68 \div 4$


Talk about Amir's method with a partner.
(7)

Use Amir's method to complete these calculations.
a) $42 \div 3=$
14

b) $96 \div 4=24$

c) $85 \div 5=17$

d) $84 \div 6=14$

(8) Kim has 92 beads.

She wants to share them equally between 4 friends.
How many beads will each friend get?Write $<,>$ or $=$ to make the statements correct.


Wednesday

| $1 \times$ | $2 x$ | $3 x$ | $4 \times$ | $5 \times$ |
| :---: | :---: | :---: | :---: | :---: |
| $1 \times 1=1$ | $2 \times 1=2$ | $3 \times 1=3$ | $4 \times 1=4$ | $5 \times 1=5$ |
| $1 \times 2=2$ | $2 \times 2=4$ | $3 \times 2=6$ | $4 \times 2=8$ | $5 \times 2=10$ |
| $1 \times 3=3$ | $2 \times 3=6$ | $3 \times 3=9$ | $4 \times 3=12$ | $5 \times 3=15$ |
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| $1 \times 6=6$ | $2 \times 6=12$ | $3 \times 6=18$ | $4 \times 6=24$ | $5 \times 6=30$ |
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| $1 \times 9=9$ | $2 \times 9=18$ | $3 \times 9=27$ | $4 \times 9=36$ | $5 \times 9=45$ |
| $1 \times 10=10$ | $2 \times 10=20$ | $3 \times 10=30$ | $4 \times 10=40$ | $5 \times 10=50$ |
| $6 \times$ | $7 \times$ | $8 \times$ | $9 x$ | $10 x$ |
| $6 \times 1=6$ | $7 \times 1=7$ | $8 \times 1=8$ | $9 \times 1=9$ | $10 \times 1=10$ |
| $6 \times 2=12$ | $7 \times 2=14$ | $8 \times 2=16$ | $9 \times 2=18$ | $10 \times 2=20$ |
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| $6 \times 5=30$ | $7 \times 5=35$ | $8 \times 5=40$ | $9 \times 5=45$ | $10 \times 5=50$ |
| $6 \times 6=36$ | $7 \times 6=42$ | $8 \times 6=48$ | $9 \times 6=54$ | $10 \times 6=60$ |
| $6 \times 7=42$ | $7 \times 7=49$ | $8 \times 7=56$ | $9 \times 7=63$ | $10 \times 7=70$ |
| $6 \times 8=48$ | $7 \times 8=56$ | $8 \times 8=64$ | $9 \times 8=72$ | $10 \times 8=80$ |
| $6 \times 9=54$ | $7 \times 9=63$ | $8 \times 9=72$ | $9 \times 9=81$ | $10 \times 9=90$ |
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## January

12 Times tables

$$
\begin{aligned}
12 \times 0 & = \\
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12 \times 7 & =84 \\
12 \times 8 & =96 \\
12 \times 9 & =108 \\
12 \times 10 & =120 \\
12 \times 11 & =132 \\
12 \times 12 & =144
\end{aligned}
$$

## Arithmetic

I) Multiply 374 kg by 6
2) What is the area of these two shapes?

3) Write down 2 factors of 20
4) Work out $280+849$
I) Multiply 374 kg by $6 \quad 2,244 \mathrm{~kg}$
2) What is the area of these two shapes?


$$
\begin{aligned}
& A=40 \mathrm{~cm}^{2} \\
& B=28 \mathrm{~cm}^{2}
\end{aligned}
$$

3) Write down 2 factors of 20

Any two of $1,2,4,5,10,20$
4) Work out $280+849$

LO:Divide 2-digits by 1-digit (2)

## Watch video for support https://vimeo.com/492054019



Division w/Remainders

- remainder - the amount leftover after creating $=$ groups $\omega 1 \div$

$$
\text { Ex. } 24 \div 7=3.3
$$

Dividend gropes


SHARE To Find "in each group


Make groups of Divisor To Find $=$ of groups


Teddy is dividing 85 by 4 using place value counters. -(0) (1) (1) First, he divides the tens.

| Tens | Ones |  |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |



Use Teddy's method to calculate:

$$
86 \div 4 \quad 87 \div 4 \quad 88 \div 4 \quad 97 \div 3 \quad 98 \div 3 \quad 99 \div 3
$$

If we are dividing by 3 , what is the highest remainder we can have?

If we are dividing by 4 , what is the highest remainder we can have?

Can we make a general rule comparing our divisor (the number we are dividing by) to our remainder?

## Problem

solving/reasoning

Rosie writes,
$85 \div 3=28 \mathrm{r} 1$

She says 85 must be 1 away from a multiple of 3
Do you agree?

37 sweets are shared between 4 friends. How many sweets are left over?

Four children attempt to solve this problem.

- Alex says it's 1
- Mo says it's 9
- Eva saysit's 9 r 1
- Jack says it's 8 r 5

Can you explain who is correct and the mistakes other people have made?

Rosie writes,
$85 \div 3=28 \mathrm{r} 1$

She says 85 must be 1 away from a multiple of 3
Do you agree?

37 sweets are shared between 4 friends. How many sweets are left over?

Four children attempt to solve this problem.

- Alex says it's 1
- Mo says it's 9
- Eva saysit's 9 r 1
- Jack says it's 8 r 5

Can you explain who is correct and the mistakes other people have made?

I agree, remainder 1 means there is 1 left over. 85 is one more than 84 which is a multiple of 3

Alex is correct as there will be one remaining sweet. Mo has found how many sweets each friend will receive. Eva has written the answer to the calculation. Jack has found a remainder that is larger than the divisor so is incorrect.
(1) Whitney is working out $49 \div 4$ using a place value chart.

a) Talk about Whitney's method with a partner.
b) Why is there one counter left over?
$\qquad$
$\qquad$
c) Complete the division.
d) Use place value counters to complete the divisions.

$51 \div 4=$
$\square$


$$
0
$$

a) $47 \div 3=\square$
e) $49 \div 6=\square$
b) $26 \div 5=\square$
c) $89 \div 4=\square$
g) $74 \div 3=\square$
d) $32 \div 5=$ $\square$
h) $81 \div 7=$ $\square$
f) $47 \div 4=\square$
d) $32 \div 5=\square$
(2) Complete the divisions.

What do you notice?
(3) Complete the divisions.
a) $36 \div 4=\square$
c) $45 \div 3=\square$


$47 \div 3=\square$


$$
48 \div 3=\square
$$

$$
40 \div 4=\square
$$


b) $70 \div 5=\square$
d) $92 \div 4=\square$


Dora has been working out some divisions

$$
\begin{aligned}
& 72 \div 4=18 \\
& 73 \div 4=18 \mathrm{r} 1 \\
& 74 \div 4=18 \mathrm{r} 2 \\
& 75 \div 4=18 \mathrm{r} 3
\end{aligned}
$$


a) Why does Dora think this?
$\qquad$
b) Explain why Dora is wrong
(5) Eggs come in boxes of 6

Annie has 75 eggs.
She wants to know how many boxes she can fill.
a) Complete the division to work it out.

b) What does the remainder represent? Talk about it with a partner.
c) Complete the sentence.
Annie can fill $\square$ boxes with $\square$ eggs left over.

6 Jack has these bulbs.
Daffodils 49

Equal numbers of each bulb are put into 4 tubs. How many of each bulb will be in each tub?


How many of each bulb will be left over?

Daffodils $\square$ Tulips $\square$ Crocuses $\square$
How many tubs could Jack use so that there are no bulbs left over?

Complete the divisions.
a) $47 \div 3=15 r^{2}$
b) $26 \div 5=5 \mathrm{r} 1$
c) $89 \div 4=22 \mathrm{r} 1$
d) $32 \div 5=6 r 2$
e) $49 \div 6=8 r 1$
f) $47 \div 4=11 r 3$
g) $74 \div 3=24 \mathrm{r} 2$
h) $81 \div 7=11 \times 4$
a) Talk about Whitney's method with a partner.
b) Why is there one counter left over?
$\qquad$

3) Complete the divisions.

c) Complete the division.

$$
49 \div 4=12 r 1
$$

d) Use place value counters to complete the divisions.

$$
50 \div 4=12 r 2 \quad 51 \div 4=12 r 3
$$

b) $70 \div 5=14$

$$
71 \div 5=14 r 1
$$

$$
\begin{aligned}
& 72 \div 5=14 r 2 \\
& 73 \div 5=14 r 3 \\
& 74 \div 5=14-4
\end{aligned}
$$

d) $92 \div 4=23$

$$
91 \div 4=22 r 3
$$

$$
90 \div 4=22 r 2
$$

$$
89 \div 4=22 r 1
$$

$$
88 \div 4=22
$$Dora has been working out some divisions.

$$
\begin{aligned}
& 72 \div 4=18 \\
& 73 \div 4=18 \mathrm{r} 1 \\
& 74 \div 4=18 \mathrm{r} 2 \\
& 75+4=18 \mathrm{r} 3
\end{aligned}
$$


a) Why does Dora think this?
$\qquad$
$\qquad$
b) Explain why Dora is wrong.


Eggs come in boxes of 6 Annie has 75 eggs.
She wants to know how many boxes she can fill.
a) Complete the division to work it out.

b) What does the remainder represent? Talk about it with a partner.
c) Complete the sentence. Annie can fill 12 boxes with 3 eggs left over.
(6)

Jack has these bulbs.


Equal numbers of each bulb are put into 4 tubs. How many of each bulb will be in each tub?


How many of each bulb will be left over?


How many tubs could Jack use so that there are no bulbs left over?

Thursday

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

## January

12 Times tables

$$
\begin{aligned}
12 \times 0 & = \\
12 \times 1 & =12 \\
12 \times 2 & =24 \\
12 \times 3 & =36 \\
12 \times 4 & =48 \\
12 \times 5 & =60 \\
12 \times 6 & =72 \\
12 \times 7 & =84 \\
12 \times 8 & =96 \\
12 \times 9 & =108 \\
12 \times 10 & =120 \\
12 \times 11 & =132 \\
12 \times 12 & =144
\end{aligned}
$$

## ARITHMETIC

I) Multiply l,305 by 6
2) A square has an area of $64 \mathrm{~m}^{2}$ What is the length of one of its sides?
3) Which of these is a prime number? 10,11 and 15
4) Find the sum of 199 and 198
I) Multiply 1,305 by $6 \quad 7,830$
2) A square has an area of $64 \mathrm{~m}^{2}$ What is the length of one of its sides? 8 cm
3) Which of these is a prime number? IO, II and I5
4) Find the sum of 199 and $198 \quad 397$

## LO: To divide 3 digits by 1 digit

## Watch video for support https://vimeo.com/492054040



Annie is dividing 609 by 3 using place value counters.

| Hundreds | Tens | Ones |
| :---: | :---: | :---: |
| 100 |  |  |
| 100 |  | 1 |
| 100 | 100 | 1 |



Use Annie's method to calculate the divisions.

## Mathematical Talk

$$
906 \div 3 \quad 884 \div 4 \quad 884 \div 8 \quad 489 \div 2
$$

What is the same and what's different when we are dividing 3digit number by a 1 -digit number and a 2 -digit number by a 1 digit number?

Do we need to partition 609 into three parts or could it just be partitioned into two parts?

Can we partition the number in more than one way to support dividing more efficiently?

## Reasoning and Problem Solving

Dexter is calculating $208 \div 8$ using partwhole models.
Can you complete each model?


How many part-whole models can you make to calculate $132 \div 4$ ?

You have 12 counters and the place value grid. You must use all 12 counters to complete the following.


Create a 3 -digit number divisible by 2 Create a 3 -digit number divisible by 3 Create a 3 -digit number divisible by 4 Create a 3 -digit number divisible by 5 Can you find a 3-digit number divisible by $6,7,8$ or 9 ?

## Reasoning and Problem Solving



You have 12 counters and the place value grid. You must use all 12 counters to complete the following.


Create a 3 -digit number divisible by 2 Create a 3 -digit number divisible by 3 Create a 3 -digit number divisible by 4 Create a 3 -digit number divisible by 5 Can you find a 3-digit number divisible by $6,7,8$ or 9 ?

2: Any even number

3: Any 3-digit number (as the digits add up to 12, a multiple of 3)

4: A number where the last two digits are a multiple of 4

5: Any number with 0 or 5 in the ones column.

Possible answers
6: Any even number
$7: 714,8: 840$
9: Impossible

## TASK

Jack is working out $844 \div 4$ using a place value chart.| $H$ | $T$ | $O$ |
| :---: | :---: | :---: |
| (10) | 0 | 1 |
| (10) | 0 | 1 |
| (10) | 0 | 0 |
| (10) | 0 | 0 |

a) Talk about Jack's method with a partner.
b) Complete the division.

(2) Use Jack's method to work out these divisions.
a) $525 \div 5=$ $\square$
c) $840 \div 8=$ $\square$
b) $636 \div 6=$ $\square$
d) $903 \div 3=$ $\square$
(4) A ball of string is 848 cm long.

It is cut into 4 equal pieces.
What is the length of one piece of string?
$\square$Whitney is using flexible partitioning to divide a 3 -digit number.

Use Whitney's method to work out these divisions.
a) $585 \div 5=$ $\square$
c) $648 \div 4=$

b) $672 \div 6=$ $\square$
d) $847 \div 7=$ $\square$

Complete the part-whole models and divisions.


$$
168 \div 4=\square
$$



$$
169 \div 4=\square
$$

What is the same and what is different about the calculations? Talk about it with a partner.
(7) Complete the divisions.
a) $258 \div 6=$ $\square$ c) $864 \div 4=$ $\square$
b) $623 \div 5=$ $\square$ d) $824 \div 3=$ $\square$

Eva has a piece of ribbon.
The ribbon measures 839 cm long.
How much ribbon would be left over if she cuts it into: a) 4 equal pieces
$\square$
b) 6 equal pieces

c) 8 equal pieces


Can Eva cut the ribbon into equal pieces with no ribbon left over?

Explain your answer.Use 15 counters and a place value chart.
a) Can you make a number that is divisible by 3? $\qquad$
b) Can you make a number that has a remainder of 1 when divided by 3?
c) Can you make a number that has a remainder of 2 when divided by 3?

What do you notice? Talk about your findings with a partner.

## ANSWERS

White
Rose

Jack is working out $844 \div 4$ using a place value chart.

| $H$ | $T$ | $O$ |
| :---: | :---: | :---: |
| 10 | 0 | 0 |
| 100 | 0 | 0 |
| 100 | 0 | 0 |
| 100 | 0 | 0 |

a) Talk about Jack's method with a partner.
b) Complete the division.

$$
844 \div 4=211
$$

4. 

A ball of string is 848 cm long.
It is cut into 4 equal pieces.
What is the length of one piece of string?Whitney is using flexible partitioning to divide a 3 -digit number.Eva is working out $844 \div 4$ using a part-whole model.


Complete Eva's method.

$$
844 \div 4=211
$$

$$
2
$$



Use Whitney's method to work out these divisions.
a) $585 \div 5=117$
b) $672 \div 6=112$
c) $648 \div 4=162$
d) $847 \div 7=121$Complete the part-whole models and divisions.


$$
168 \div 4=42
$$

$$
169 \div 4=42+1
$$

What is the same and what is different about the calculations? Talk about it with a partner.

Complete the divisions.
a) $258 \div 6=$ $\square$
c) $864 \div 4=$ $\square$
b) $623 \div 5=$ $\square$ d) $824 \div 3=$ $\square$
(8)

Eva has a piece of ribbon
The ribbon measures 839 cm long.
How much ribbon would be left over if she cuts it into:
a) 4 equal pieces

3 cm
b) 6 equal pieces

## 5 cm

c) 8 equal pieces

Can Eva cut the ribbon into equal pieces with no ribbon left over? $\qquad$
Explain your answer. 839 preces each I on longUse 15 counters and a place value chart.
a) Can you make a number that is divisible by 3 ?
b) Can you make a number that has a remainder of 1 when divided by 3?
$\qquad$
c) Can you make a number that has a remainder of 2 when divided by 3? $\qquad$
What do you notice? Talk about your findings with a partner.

Friday

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

## January

12 Times tables

$$
\begin{aligned}
12 \times 0 & = \\
12 \times 1 & =12 \\
12 \times 2 & =24 \\
12 \times 3 & =36 \\
12 \times 4 & =48 \\
12 \times 5 & =60 \\
12 \times 6 & =72 \\
12 \times 7 & =84 \\
12 \times 8 & =96 \\
12 \times 9 & =108 \\
12 \times 10 & =120 \\
12 \times 11 & =132 \\
12 \times 12 & =144
\end{aligned}
$$

## Arithmetic

## Work out $2,713 \times 8$

2) What is the perimeter of the square?

3) What is $5^{2}$ ?
4) Max saves $£ 15$. He spends $£ 2.50$ on a magazine. How much does he have left?
I) Work out $2,713 \times 8 \quad 21,704$
5) What is the perimeter of the square?


## 20 cm

3) What is $5^{2}$ ? 25
4) Max saves $£ 15$. He spends $£ 2.50$ on a magazine. How much does he have left?

## LO: To divide 4 digits by 1 digit using short division (bus stop method)

## Watch video for support https://vimeo.com/492054136




Here is a method to calculate 4,892 divided by 4 using place value counters and short division.


## Mathematical Talk

Use this method to calculate:

$$
6,610 \div 5 \quad 2,472 \div 3 \quad 9,360 \div 4
$$

How many groups of 4 thousands are there in 4 thousands?
How many groups of 4 hundreds are there in 8 hundreds?
How many groups of 4 tens are there in 9 tens?
What can we do with the remaining ten?
How many groups of 4 ones are there in 12 ones?
Do I need to solve both calculations to compare the divisions?

## Reasoning and Problem Solving

Jack is calculating $2,240 \div 7$
He says you can't do it because 7 is larger than all of the digits in the number.

Do you agree with Jack?
Explain your answer.

## Spot the Mistake

Explain and correct the working.


## Reasoning and Problem Solving

Jack is calculating $2,240 \div 7$

He says you can't do it because 7 is larger than all of the digits in the number.

Do you agree with Jack?
Explain your answer.

Jack is incorrect.
You can exchange between columns.
You can't make a group of 7
thousands out of 2 thousand, but you can make groups of 7 hundreds out
of 22 hundreds.

The answer is 320

## Spot the Mistake

Explain and correct the working.


There is no exchanging between columns within the calculation. The final answer should have been 3,138
2) Use the place value charts to work out the divisions.
a) $8,532 \div 2=\square$

The first step has been done for you.



There are $\square$ groups of 3 ones
$3,936 \div 3=$ $\square$
b) Use the place value chart to work out $8,404 \div 4$


$8,404 \div 4=$ $\square$
c) $6,078 \div 6=$

| Th | $H$ | T | O |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |


(3) Complete the divisions.
a)

d)

b)

e)

c)

f)


Could you have calculated the answer to part f) more efficiently?Work out the values of $a, b$ and $c$.

| 9,415 |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $a$ | $a$ | $a$ | $a$ | $a$ | $a$ | $a$ |

$\square$

Books are available to buy in three different deals.

$£ 12.99$ £38.16


Which is the best deal?


Find the missing digits.
a)

b)

Show your workings.

## ANSWERS

a) Circle the groups of 3 to help you complete the sentences and calculation.

The first step has been done for you.


There is 1 group of 3 thousands.
There are 3 groups of 3 hundreds.
There is $\square$ group of 3 tens.
There are 2 groups of 3 ones.
$3,936 \div 3=1,312$
b) Use the place value chart to work out $8,404 \div 4$

2) Use the place value charts to work out the divisions.
a) $8,532 \div 2=4,266$

b) $5,296 \div 4=1,324$

| Th | H | T | O |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |


c) $6,078 \div 6=1,013$

| Th | H | T | O |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |


(3) Complete the divisions.
a)

d)

b)

e)

c)

f)


Could you have calculated the answer to part f) more efficiently?Work out the values of $a, b$ and $c$.

| 9,415 |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $a$ | $a$ | $a$ | $a$ | $a$ | $a$ | $a$ |

$$
a=1,345
$$

Books are available to buy in three different deals.


Which is the best deal?
Show your workings.

