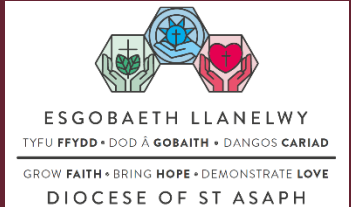




# Mathematics and Numeracy Workshop Year 3 & 4

Ysgol yr Holl Saint – All Saints' School, Gresford. Wrexham.



- *We are pleased to share with you some ideas and games that we use with our pupils to ensure they are able to practice, embed, use and apply the skills and knowledge they acquire in our Mathematics lessons.*
- *Each station has a sample of a game / activity or an app that we use to achieve this.*
- *Pupils are encouraged to be able to recall known number facts quickly and use the information to solve problems.*
- *As you make your way around each station, please read each instructional slide outlining aims of the activity and identifying tips to help pupils.*

# Activity 1 – Game 24



# Activity 2 – Reasoning Questions

Aled won some money.  
 He gave **half** of his money to his sister.  
 Then he gave **half** of the money he had left to his brother.  
 Now Aled has £2

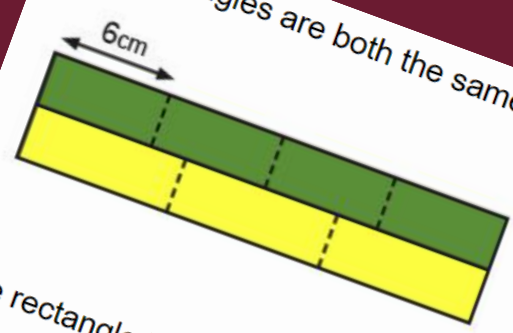
How much money did Aled win?

£

Here is part of a number grid.  
 Some numbers are missing.

1	2	3	4	5
6	7	8	9	10
11	12	13		
			?	

? =



Two rectangles are both the same length.

One rectangle is divided into **four** equal pieces, each one 6cm long.  
 The other rectangle is divided into **three** equal pieces, each one

cm long.



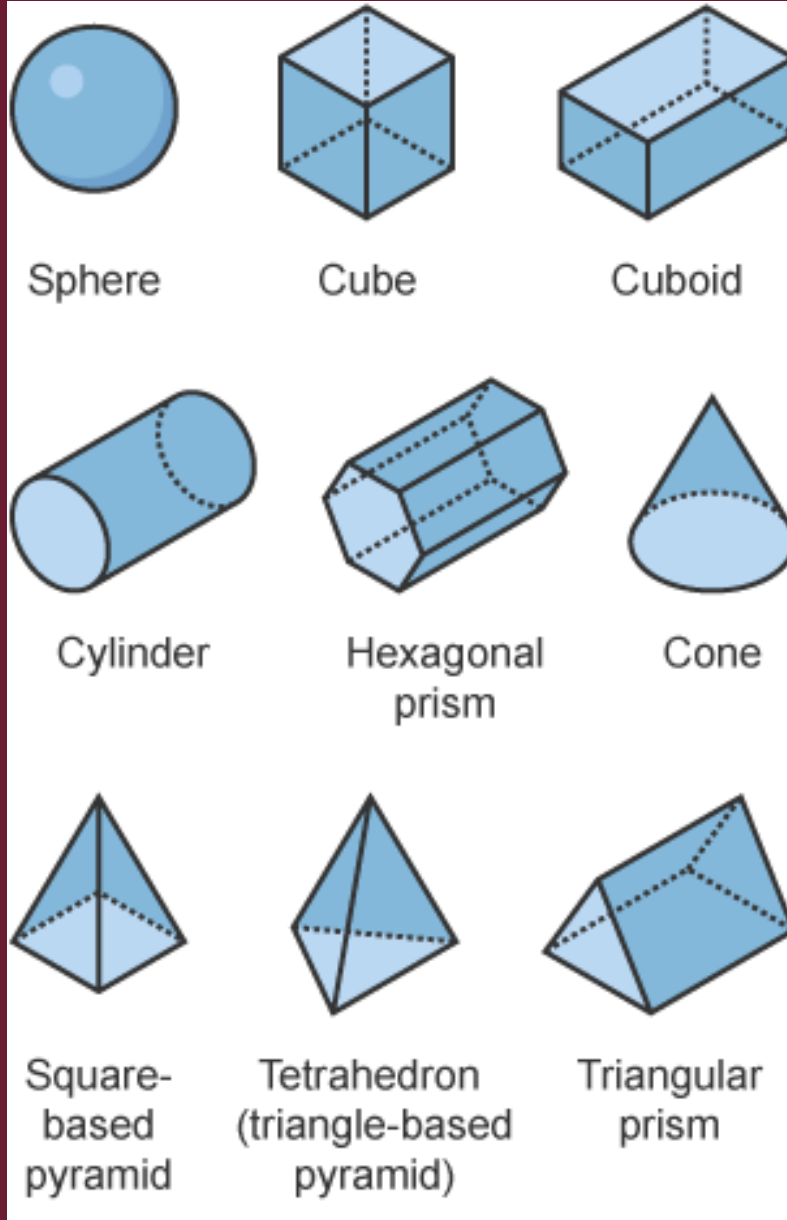
2 of these tins cost 50p altogether.



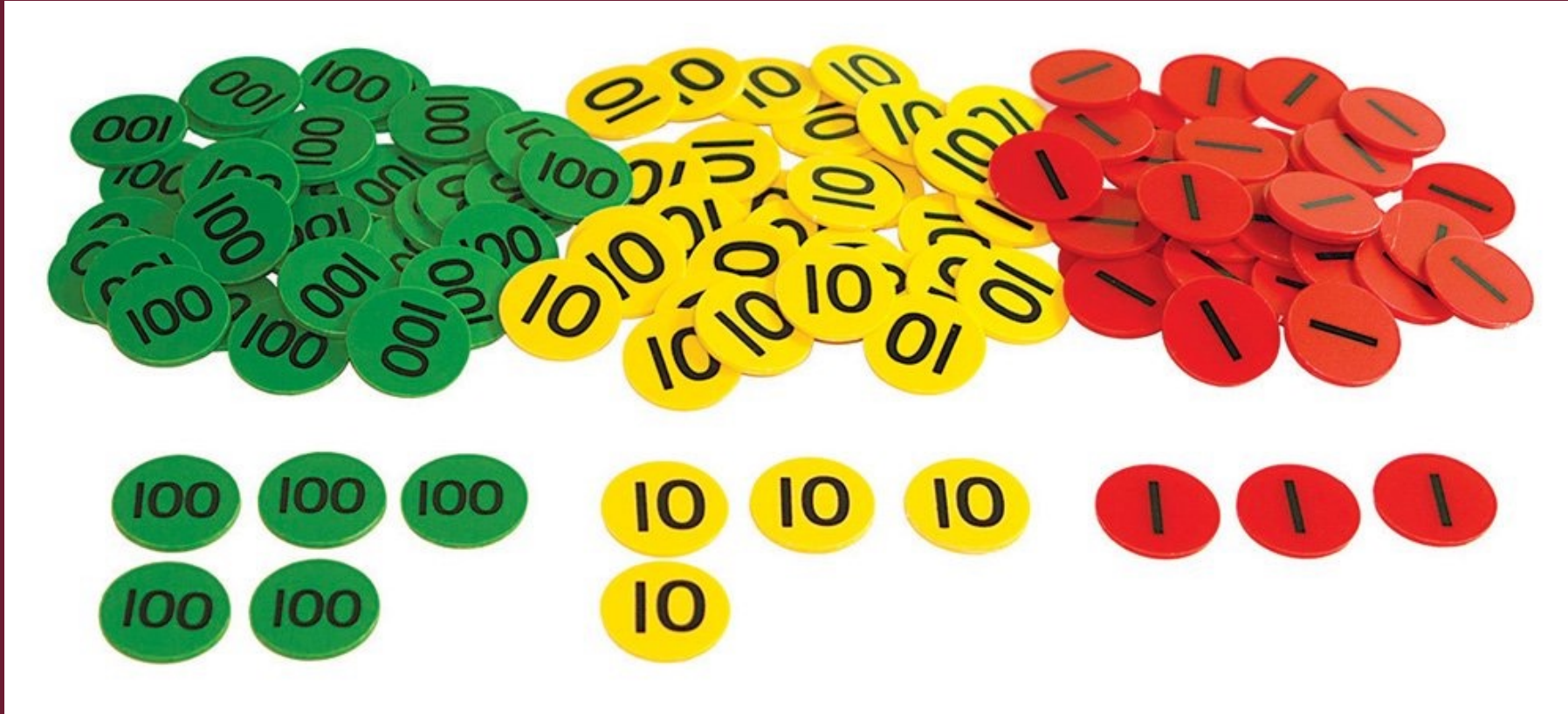
4 of these tins cost  altogether.

£

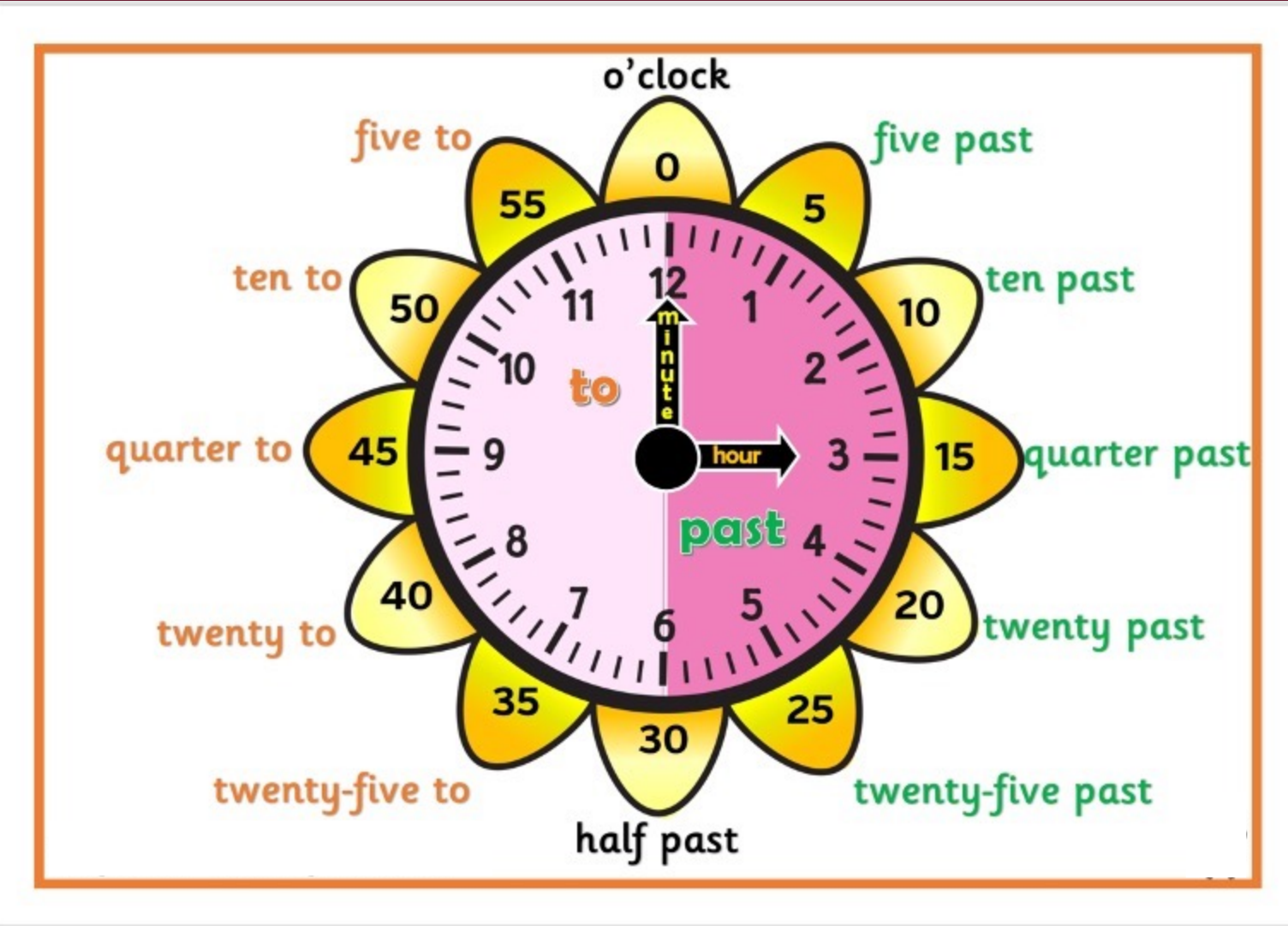
# Activity 3 – Shapes and symmetry



# Activity 4 – Addition and Subtraction



# Activity 5 – Telling the time



# Activity 6 – Times tables Rock Stars





## Reasoning Question 1

Two rectangles are both the same length.



One rectangle is divided into **four** equal pieces, each one 6cm long.

The other rectangle is divided into **three** equal pieces, each one  cm long.

## Reasoning Question 1

Two rectangles are both the same length.



One rectangle is divided into **four** equal pieces, each one 6cm long.

The other rectangle is divided into **three** equal pieces, each one  cm long.

### Reasoning Question 2

Here is part of a number grid.

Some numbers are missing.

1	2	3	4	5
6	7	8	9	10
11	12	13		
			?	

? =

### Reasoning Question 2

Here is part of a number grid.

Some numbers are missing.

1	2	3	4	5
6	7	8	9	10
11	12	13		
			?	

? =

### Reasoning Question 3

Aled won some money.

He gave **half** of his money to his sister.

Then he gave **half** of the money he had left to his brother.

Now Aled has £2

How much money did Aled win?

### Reasoning Question 3

Aled won some money.

He gave **half** of his money to his sister.

Then he gave **half** of the money he had left to his brother.

Now Aled has £2

How much money did Aled win?

### Reasoning Question 4



2 of these tins cost 50p altogether.



4 of these tins cost £  altogether.

### Reasoning Question 4



2 of these tins cost 50p altogether.



4 of these tins cost £  altogether.

## Reasoning Question 5



### Buying a Balloon



Lola bought a balloon at the circus. She paid for it using six coins.

How much might the balloon have cost?

What is the largest amount Lola could have paid?

What is the smallest amount Lola could have paid?

Imagine that Lola has two different types of coin.

How much might the balloon cost now?

Can you find all the possible prices? How do you know you have found them all?

Which of your answers seems a reasonable amount to pay for a balloon?

## Reasoning Question 5



### Buying a Balloon



Lola bought a balloon at the circus. She paid for it using six coins.

How much might the balloon have cost?

What is the largest amount Lola could have paid?

What is the smallest amount Lola could have paid?

Imagine that Lola has two different types of coin.

How much might the balloon cost now?

Can you find all the possible prices? How do you know you have found them all?

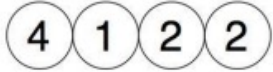
Which of your answers seems a reasonable amount to pay for a balloon?

## Reasoning Question 6

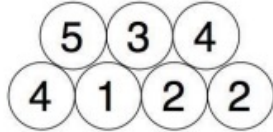


### Build it Up

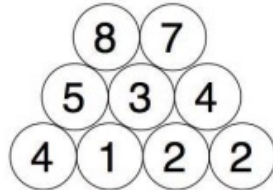
We start with any four numbers (not zero!):



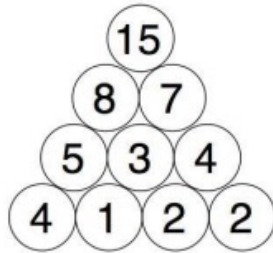
We then add them in pairs and place the total above them:



And we then add in pairs the new numbers we just got:



We do the same with those two numbers to get our final number:



You need to find four starting numbers to place at the bottom so that the top number will be 15.

Try to find as many sets of four starting numbers as you can.

## Reasoning Question 6

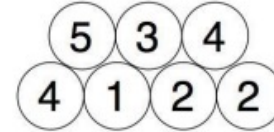


### Build it Up

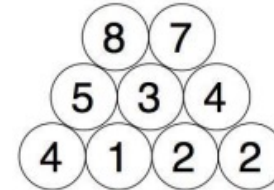
We start with any four numbers (not zero!):



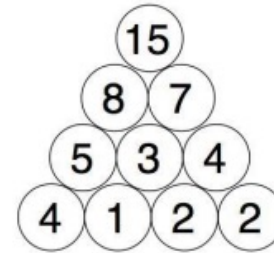
We then add them in pairs and place the total above them:



And we then add in pairs the new numbers we just got:



We do the same with those two numbers to get our final number:



You need to find four starting numbers to place at the bottom so that the top number will be 15.

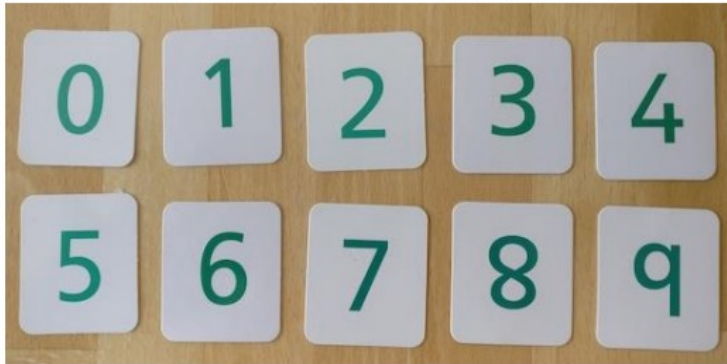
Try to find as many sets of four starting numbers as you can.

## Reasoning Question 7



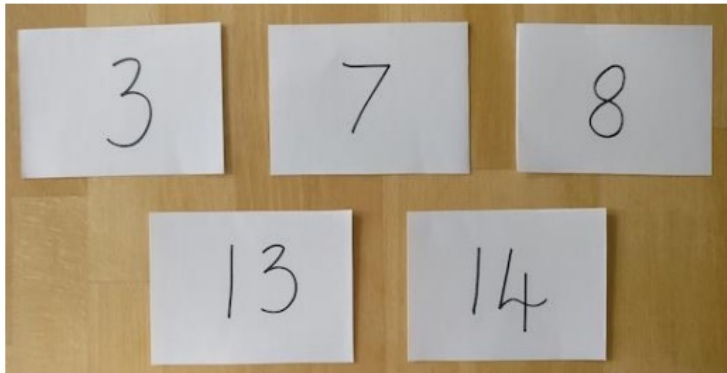
Sealed Solution

Here is a set of ten cards, each showing one of the digits from 0 to 9:



The ten cards are divided up between five envelopes so that there are two cards in each envelope.

The sum of the two numbers inside it is written on each envelope:



What numbers could be inside the "8" envelope?

## Reasoning Question 7



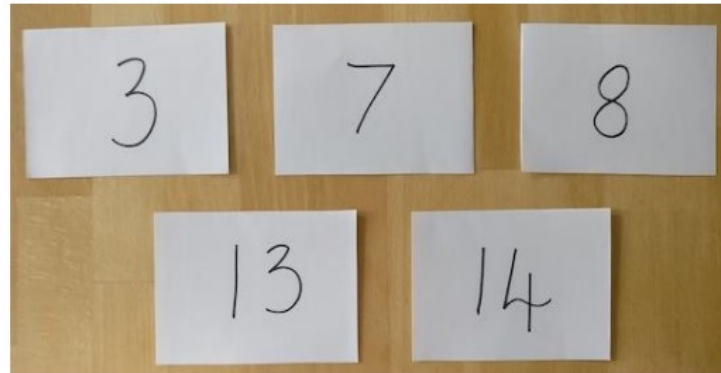
Sealed Solution

Here is a set of ten cards, each showing one of the digits from 0 to 9:



The ten cards are divided up between five envelopes so that there are two cards in each envelope.

The sum of the two numbers inside it is written on each envelope:



What numbers could be inside the "8" envelope?

TTh

Th

H

T

O



TTh

Th

H

T

O


## TUE 02 JUL 2024

	10	2	5	3	4	8	6	7	9	11	12
10	10 x 10	10 x 2	10 x 5	10 x 3	10 x 4	10 x 8	10 x 6	10 x 7	10 x 9	10 x 11	10 x 12
2	2 x 10	2 x 2	2 x 5	2 x 3	2 x 4	2 x 8	2 x 6	2 x 7	2 x 9	2 x 11	2 x 12
5	5 x 10	5 x 2	5 x 5	5 x 3	5 x 4	5 x 8	5 x 6	5 x 7	5 x 9	5 x 11	5 x 12
3	3 x 10	3 x 2	3 x 5	3 x 3	3 x 4	3 x 8	3 x 6	3 x 7	3 x 9	3 x 11	3 x 12
4	4 x 10	4 x 2	4 x 5	4 x 3	4 x 4	4 x 8	4 x 6	4 x 7	4 x 9	4 x 11	4 x 12
8	8 x 10	8 x 2	8 x 5	8 x 3	8 x 4	8 x 8	8 x 6	8 x 7	8 x 9	8 x 11	8 x 12
6	6 x 10	6 x 2	6 x 5	6 x 3	6 x 4	6 x 8	6 x 6	6 x 7	6 x 9	6 x 11	6 x 12
7	7 x 10	7 x 2	7 x 5	7 x 3	7 x 4	7 x 8	7 x 6	7 x 7	7 x 9	7 x 11	7 x 12
9	9 x 10	9 x 2	9 x 5	9 x 3	9 x 4	9 x 8	9 x 6	9 x 7	9 x 9	9 x 11	9 x 12
11	11 x 10	11 x 2	11 x 5	11 x 3	11 x 4	11 x 8	11 x 6	11 x 7	11 x 9	11 x 11	11 x 12
12	12 x 10	12 x 2	12 x 5	12 x 3	12 x 4	12 x 8	12 x 6	12 x 7	12 x 9	12 x 11	12 x 12

<b>NO DATA</b>	<b>0 - 1 s</b>	<b>1 - 2 s</b>	<b>2 - 3 s</b>	<b>3 - 4 s</b>	<b>4 - 5 s</b>	<b>5 - 6 s</b>	<b>6 - 7 s</b>	<b>7 - 8 s</b>	<b>8 - 9 s</b>	<b>9 - 10 s</b>	<b>&gt; 10 s</b>
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## TUE 02 JUL 2024

	10	2	5	3	4	8	6	7	9	11	12
10	10 x 10	10 x 2	10 x 5	10 x 3	10 x 4	10 x 8	10 x 6	10 x 7	10 x 9	10 x 11	10 x 12
2	2 x 10	2 x 2	2 x 5	2 x 3	2 x 4	2 x 8	2 x 6	2 x 7	2 x 9	2 x 11	2 x 12
5	5 x 10	5 x 2	5 x 5	5 x 3	5 x 4	5 x 8	5 x 6	5 x 7	5 x 9	5 x 11	5 x 12
3	3 x 10	3 x 2	3 x 5	3 x 3	3 x 4	3 x 8	3 x 6	3 x 7	3 x 9	3 x 11	3 x 12
4	4 x 10	4 x 2	4 x 5	4 x 3	4 x 4	4 x 8	4 x 6	4 x 7	4 x 9	4 x 11	4 x 12
8	8 x 10	8 x 2	8 x 5	8 x 3	8 x 4	8 x 8	8 x 6	8 x 7	8 x 9	8 x 11	8 x 12
6	6 x 10	6 x 2	6 x 5	6 x 3	6 x 4	6 x 8	6 x 6	6 x 7	6 x 9	6 x 11	6 x 12
7	7 x 10	7 x 2	7 x 5	7 x 3	7 x 4	7 x 8	7 x 6	7 x 7	7 x 9	7 x 11	7 x 12
9	9 x 10	9 x 2	9 x 5	9 x 3	9 x 4	9 x 8	9 x 6	9 x 7	9 x 9	9 x 11	9 x 12
11	11 x 10	11 x 2	11 x 5	11 x 3	11 x 4	11 x 8	11 x 6	11 x 7	11 x 9	11 x 11	11 x 12
12	12 x 10	12 x 2	12 x 5	12 x 3	12 x 4	12 x 8	12 x 6	12 x 7	12 x 9	12 x 11	12 x 12

<b>NO DATA</b>	<b>0 - 1 s</b>	<b>1 - 2 s</b>	<b>2 - 3 s</b>	<b>3 - 4 s</b>	<b>4 - 5 s</b>	<b>5 - 6 s</b>	<b>6 - 7 s</b>	<b>7 - 8 s</b>	<b>8 - 9 s</b>	<b>9 - 10 s</b>	<b>&gt; 10 s</b>
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## TUE 02 JUL 2024

	10	2	5	3	4	8	6	7	9	11	12
10	10 x 10	10 x 2	10 x 5	10 x 3	10 x 4	10 x 8	10 x 6	10 x 7	10 x 9	10 x 11	10 x 12
2	2 x 10	2 x 2	2 x 5	2 x 3	2 x 4	2 x 8	2 x 6	2 x 7	2 x 9	2 x 11	2 x 12
5	5 x 10	5 x 2	5 x 5	5 x 3	5 x 4	5 x 8	5 x 6	5 x 7	5 x 9	5 x 11	5 x 12
3	3 x 10	3 x 2	3 x 5	3 x 3	3 x 4	3 x 8	3 x 6	3 x 7	3 x 9	3 x 11	3 x 12
4	4 x 10	4 x 2	4 x 5	4 x 3	4 x 4	4 x 8	4 x 6	4 x 7	4 x 9	4 x 11	4 x 12
8	8 x 10	8 x 2	8 x 5	8 x 3	8 x 4	8 x 8	8 x 6	8 x 7	8 x 9	8 x 11	8 x 12
6	6 x 10	6 x 2	6 x 5	6 x 3	6 x 4	6 x 8	6 x 6	6 x 7	6 x 9	6 x 11	6 x 12
7	7 x 10	7 x 2	7 x 5	7 x 3	7 x 4	7 x 8	7 x 6	7 x 7	7 x 9	7 x 11	7 x 12
9	9 x 10	9 x 2	9 x 5	9 x 3	9 x 4	9 x 8	9 x 6	9 x 7	9 x 9	9 x 11	9 x 12
11	11 x 10	11 x 2	11 x 5	11 x 3	11 x 4	11 x 8	11 x 6	11 x 7	11 x 9	11 x 11	11 x 12
12	12 x 10	12 x 2	12 x 5	12 x 3	12 x 4	12 x 8	12 x 6	12 x 7	12 x 9	12 x 11	12 x 12

<b>NO DATA</b>	<b>0 - 1 s</b>	<b>1 - 2 s</b>	<b>2 - 3 s</b>	<b>3 - 4 s</b>	<b>4 - 5 s</b>	<b>5 - 6 s</b>	<b>6 - 7 s</b>	<b>7 - 8 s</b>	<b>8 - 9 s</b>	<b>9 - 10 s</b>	<b>&gt; 10 s</b>
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