

LIFE/work balance

**CLASSROOM** *Secrets*

**#LIFE**workbalance

We have started a #LIFEworkbalance campaign and we need your help to complete our LIFE/work balance survey.

We hope to publish the results soon, so please give 15 minutes of your time to help us get a true picture of school life.

Want to be a part of this campaign? Take the [survey](#) on our website and share it with your colleagues!

## Year 4 – Spring Block 1 – Multiplication and Division – Factor Pairs

### About This Resource:

This PowerPoint has been designed to support your teaching of this small step. It includes a starter activity and an example of each question from the Varied Fluency and Reasoning and Problem Solving resources also provided in this pack. You can choose to work through all examples provided or a selection of them depending on the needs of your class.

### National Curriculum Objectives:

Mathematics Year 4: (4C6a) [Recall multiplication and division facts for multiplication tables up to  \$12 \times 12\$](#)

Mathematics Year 4: (4C6c) [Recognise and use factor pairs and commutativity in mental calculations](#)

More [Year 4 Multiplication and Division](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Year 4 – Spring Block 1 – Multiplication and Division

# Step 3: Factor Pairs

## Introduction

Complete these questions about the 11 and 12 times table.

$1 \times 11 =$	
$11 \div 1 =$	
$22 \div 2 =$	
$3 \times 11 =$	
$99 \div 11 =$	

$12 \div 1 =$	
$2 \times 12 =$	
$4 \times 12 =$	
$108 \div 12 =$	
$60 \div 12 =$	

## Introduction

Complete these questions about the 11 and 12 times table.

$1 \times 11 =$	<b>11</b>
$11 \div 1 =$	<b>11</b>
$22 \div 2 =$	<b>11</b>
$3 \times 11 =$	<b>33</b>
$99 \div 11 =$	<b>9</b>

$12 \div 1 =$	<b>12</b>
$2 \times 12 =$	<b>24</b>
$4 \times 12 =$	<b>48</b>
$108 \div 12 =$	<b>9</b>
$60 \div 12 =$	<b>5</b>

Varied Fluency 1

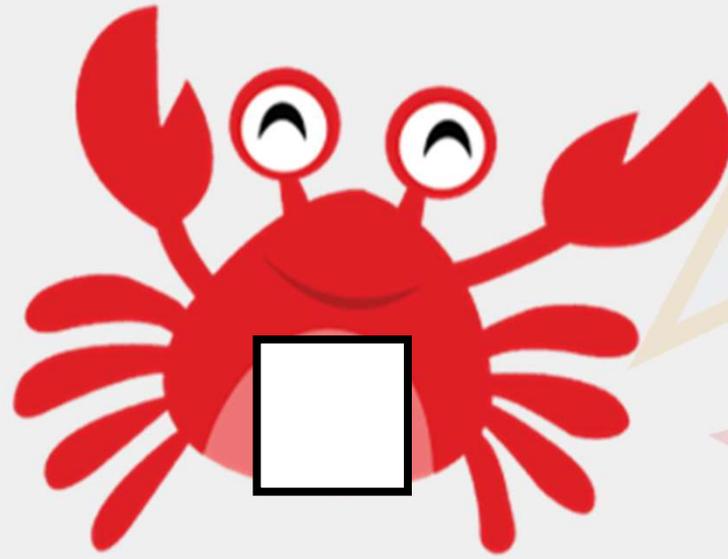
Complete the factor crab.

1

16

2

8



4

4

Varied Fluency 1

Complete the factor crab.

1

16

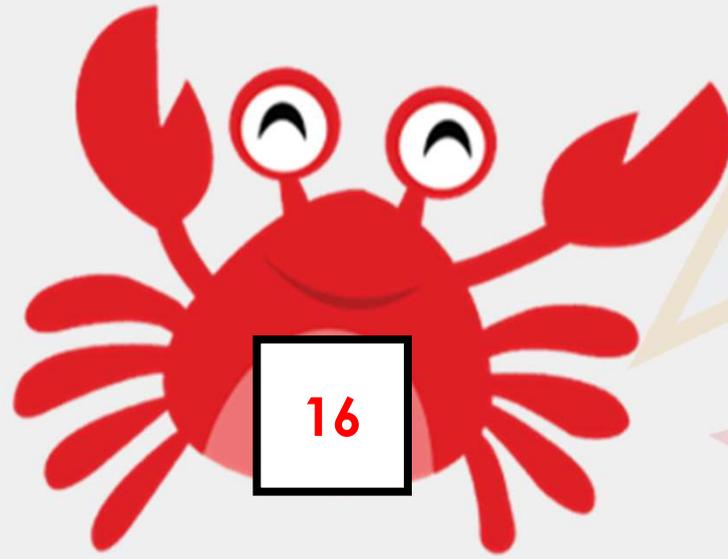
2

8

16

4

4



## Varied Fluency 2

Write the missing factors.

40	
A. 1 <input type="text"/>	40 20 C. <input type="text"/>
B. 4 <input type="text"/>	5

## Varied Fluency 2

Write the missing factors.

40	
A.	$1 \times \boxed{2}$
	$4 \times \boxed{10}$
B.	$8 \times \boxed{5}$
C.	$20 \times \boxed{2}$

**A = 2; B = 8; C = 10**

### Varied Fluency 3

Draw lines to match the factor pairs.

Factor pairs of 30

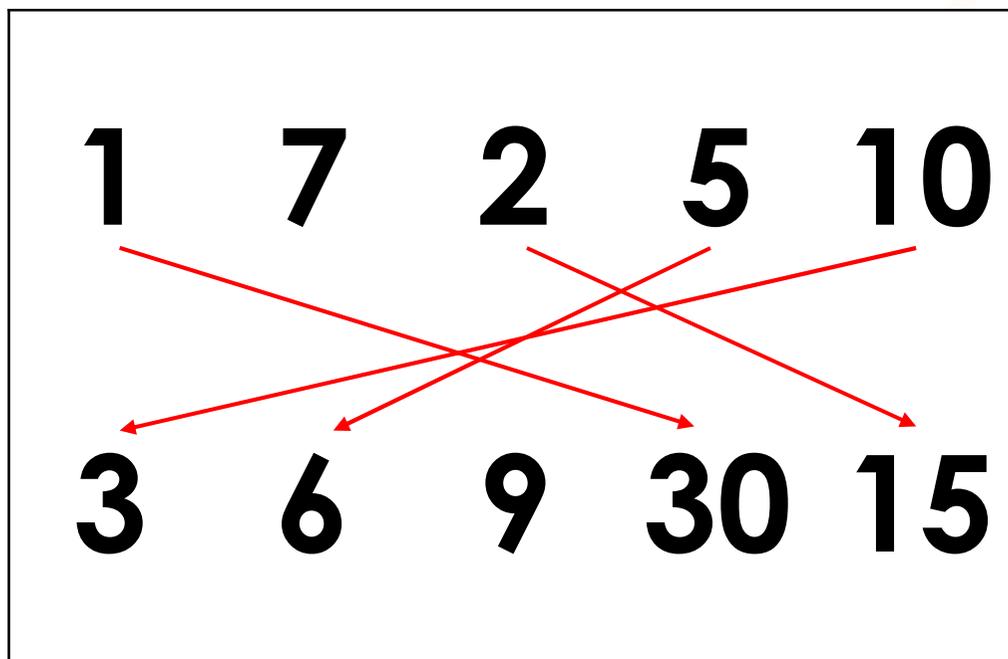
**1   7   2   5   10**

**3   6   9   30   15**

### Varied Fluency 3

Draw lines to match the factor pairs.

Factor pairs of 30



### Varied Fluency 4

Circle all the factor pairs of 50.

$14 \times 3$

$2 \times 25$

$20 \times 3$

$1 \times 50$

$21 \times 2$

$18 \times 3$

$12 \times 6$

$17 \times 3$

$10 \times 5$

Varied Fluency 4

Circle all the factor pairs of 50.

$14 \times 3$

$2 \times 25$

$20 \times 3$

$1 \times 50$

$21 \times 2$

$18 \times 3$

$12 \times 6$

$17 \times 3$

$10 \times 5$

### Problem Solving 1

**Elise is planting sunflowers in her garden in rows. The total number of sunflower seeds has these two factors, it is less than 60.**



**How many sunflower seeds might she have? Find 3 possible answers.**

### Problem Solving 1

Elise is planting sunflowers in her garden in rows. The total number of sunflower seeds has these two factors, it is less than 60.



How many sunflower seeds might she have? Find 3 possible answers.

**Various answers, for example: 6, 12, 18, 24, 30, 36, 42, 48, 54**

Reasoning 1

Eddie says,



An even number will have an even number of factor pairs.

Is Eddie correct? Prove it.

## Reasoning 1

**Eddie says,**



**An even number will have an even number of factor pairs.**

**Is Eddie correct? Prove it.**

**Eddie is incorrect because...**

## Reasoning 1

Eddie says,



An even number will have an even number of factor pairs.

Is Eddie correct? Prove it.

**Eddie is incorrect because some even numbers will have an odd number of factor pairs, for example 44, 48 and 52.**

## Reasoning 2

Is the statement below correct?

**36 has more factor pairs than 32 because it is a bigger number.**

Do you agree? Explain your answer.

## Reasoning 2

Is the statement below correct?

**36 has more factor pairs than 32 because it is a bigger number.**

Do you agree? Explain your answer.

This is true, however...

## Reasoning 2

Is the statement below correct?

**36 has more factor pairs than 32 because it is a bigger number.**

Do you agree? Explain your answer.

**This is true, however it has nothing to do with the size of number. For example, 36 has 5 factor pairs, but 44 has only 3 and 37 has only one factor pair.**