

# Homework/Extension

## Step 1: Adding Decimals Within 1

### National Curriculum Objectives:

Mathematics Year 5:(5F10) Solve problems involving number up to three decimal places  
Mathematics Year 5: (5M9a) Use all four operations to solve problems involving measure [for example, money] using decimal notation, including scaling

### Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

**Developing** Tick the missing decimal number. Adding decimals within 1 using hundredths and tenths, no exchanges. Use of a hundred square for support.

**Expected** Tick the missing decimal number. Adding decimals within 1 using thousandths, hundredths and tenths with exchanges. Use of a hundred square for support.

**Greater Depth** Tick the missing decimal number. Adding decimals within 1 using thousandths, hundredths and tenths with multiple exchanges per question.

Questions 2, 5 and 8 (Varied Fluency)

**Developing** Complete the number sequences by following the given rule. Adding decimals within 1 using hundredths and tenths, no exchanges. Use of a place value grid for support.

**Expected** Complete the number sequences by following the given rule. Adding decimals within 1 using thousandths, hundredths and tenths with exchanges.

**Greater Depth** Complete the number sequences by following the given rule. Adding decimals within 1 using thousandths, hundredths and tenths with multiple exchanges per question.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

**Developing** Identify the starting number. Adding decimals within 1 using hundredths and tenths, no exchanges.

**Expected** Identify the starting number. Adding decimals within 1 using thousandths, hundredths and tenths with exchanges.

**Greater Depth** Identify the starting number. Adding decimals within 1 using thousandths, hundredths and tenths with multiple exchanges per question.

# Adding Decimals Within 1

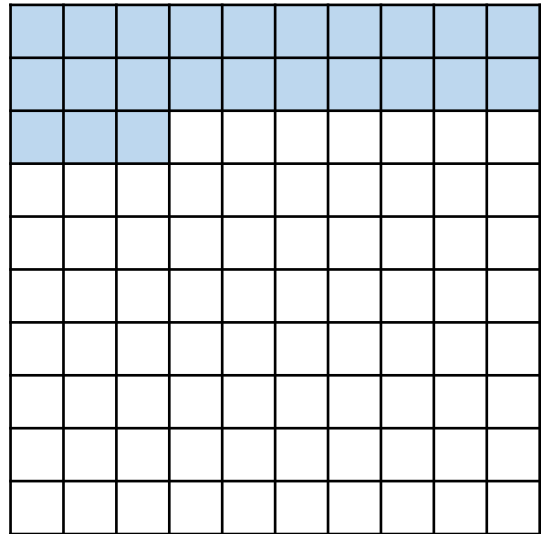
1. Tick the missing decimal in the calculation below. Use the hundred square to help you.

$$7.23 + \boxed{\phantom{00}} = 7.29$$

**0.06**

**0.05**

**0.6**



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2. Complete the number sequences by following the given rule.

**Rule**

**+ 0.02**

A. 0.61, 0.63, 0.65,

**+ 0.3**

B. 0.1, 0.4,  1

Ones	Tenths	Hundredths	Thousandths



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3. Alfie has removed 5 tenths counters and is left with the number below.



I took away 5 tenths counters.

Ones	Tenths	Hundredths
	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid blue; border-radius: 50%; padding: 5px;">0.1</div> <div style="border: 1px solid blue; border-radius: 50%; padding: 5px;">0.1</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid blue; border-radius: 50%; padding: 5px;">0.1</div> <div style="border: 1px solid blue; border-radius: 50%; padding: 5px;">0.1</div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid red; border-radius: 50%; padding: 5px;">0.01</div> <div style="border: 1px solid red; border-radius: 50%; padding: 5px;">0.01</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid red; border-radius: 50%; padding: 5px;">0.01</div> <div style="border: 1px solid red; border-radius: 50%; padding: 5px;">0.01</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid red; border-radius: 50%; padding: 5px;">0.01</div> <div style="border: 1px solid red; border-radius: 50%; padding: 5px;">0.01</div> </div>

What number did Alfie start with? Prove it.



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# Adding Decimals Within 1

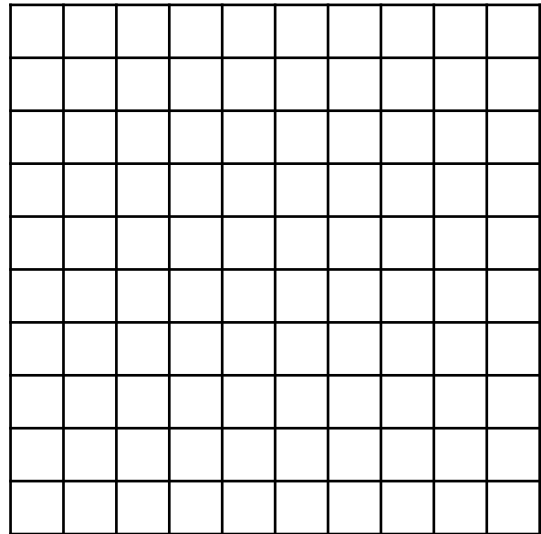
4. Tick the missing decimal in the calculation below. Use the hundred square to help you.

$$3.567 + \boxed{\phantom{000}} = 3.571$$

0.04

0.004

0.4



VF  
HW/Ext

5. Complete the number sequences by following the given rule.

Rule

+ 0.002

A. 0.013, 0.015, 0.017,

+ 0.003

B. 0.024, 0.027, , 0.033

+ 0.05

C. 0.115, 0.165, ,



VF  
HW/Ext

6. Nathan has removed 6 hundredths counters and is left with the number below.



I took away 6 hundredths counters.

Ones	Tenths	Hundredths	Thousandths
	<div style="display: flex; justify-content: space-around;"> <span>0.1</span> <span>0.1</span> </div> <div style="display: flex; justify-content: center; margin-top: 10px;"> <span>0.1</span> </div>	<div style="display: flex; justify-content: space-around;"> <span>0.01</span> <span>0.01</span> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <span>0.01</span> <span>0.01</span> </div> <div style="display: flex; justify-content: center; margin-top: 10px;"> <span>0.01</span> </div>	<div style="display: flex; justify-content: space-around;"> <span>0.001</span> <span>0.001</span> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <span>0.001</span> <span>0.001</span> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <span>0.001</span> <span>0.001</span> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <span>0.001</span> <span>0.001</span> </div>

What number did Nathan start with? Prove it.



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# Adding Decimals Within 1

7. Tick the missing decimal in the calculation below.

$$2.397 + \boxed{\phantom{000}} = 2.402$$

0.05

0.005

0.5



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8. Complete the number sequences by following the given rule.

Rule

+ 0.007

A. 0.063, 0.07, 0.077,

+ 0.006

B. 0.092, 0.098,  0.11

+ 0.08

C. 0.325, 0.405,



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9. Eliza has removed 9 thousands counters and is left with the number below.



I took away 9 thousands counters.

Ones	Tenths	Hundredths	Thousandths
	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid blue; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.1</div> <div style="border: 1px solid blue; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.1</div> </div> <div style="display: flex; flex-wrap: wrap; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid blue; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.1</div> <div style="border: 1px solid blue; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.1</div> </div> <div style="display: flex; flex-wrap: wrap; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid blue; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.1</div> <div style="border: 1px solid blue; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.1</div> </div>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid red; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.01</div> <div style="border: 1px solid red; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.01</div> <div style="border: 1px solid red; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.01</div> </div> <div style="display: flex; flex-wrap: wrap; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid red; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.01</div> <div style="border: 1px solid red; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.01</div> <div style="border: 1px solid red; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.01</div> </div> <div style="display: flex; flex-wrap: wrap; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid red; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.01</div> <div style="border: 1px solid red; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.01</div> <div style="border: 1px solid red; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.01</div> </div>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid purple; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.001</div> <div style="border: 1px solid purple; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.001</div> </div> <div style="display: flex; flex-wrap: wrap; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid purple; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.001</div> <div style="border: 1px solid purple; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.001</div> </div> <div style="display: flex; flex-wrap: wrap; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid purple; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.001</div> <div style="border: 1px solid purple; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.001</div> </div> <div style="display: flex; flex-wrap: wrap; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid purple; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.001</div> <div style="border: 1px solid purple; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 5px;">0.001</div> </div>

What number did Eliza start with? Prove it.



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## Homework/Extension

### Adding Decimals Within 1

#### Developing

1. **0.06**
2. **A. 0.67; B. 0.7**
3. **Alfie started with the number 0.96 because  $0.46 + 0.5 = 0.96$ .**

#### Expected

4. **0.004**
5. **A. 0.019; B. 0.03; C. 0.215, 0.265**
6. **Nathan started with the number 0.418 because  $0.358 + 0.06 = 0.418$ .**

#### Greater Depth

7. **0.005**
8. **A. 0.084; B. 0.104; C. 0.485, 0.565**
9. **Eliza started with the number 0.707 because  $0.698 + 0.009 = 0.707$ .**