

Maths Mastery **Decimal Place Value**

I am a four-digit decimal fraction between 3 and 4.

I have **3 decimal places**.

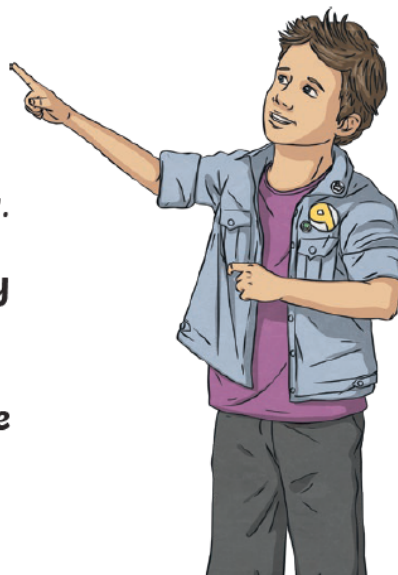
I am an **even number**.

My thousandths digit is a **prime number**.

My tenths digit is **one more than my hundredths**.

My hundredths digit is **3 times the size of my thousandths digit**.

What am I?



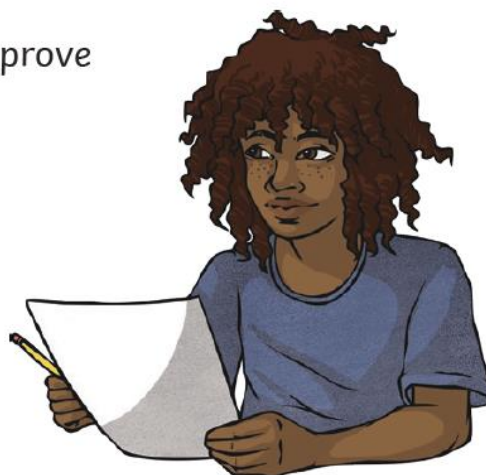
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Maths Mastery **Decimal Place Value**

Pavel says, "When you multiply a decimal number by 10, the decimal point is moved one place to the left."

$$4.56 \times 10 =$$

Work alone or with a partner to improve Pavel's explanation.



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Maths Mastery **Decimal Place Value**

George writes some decimal numbers:

0.38 2.05 12.9 8.52

He asks, "What numbers are multiplied by 10 to give the answers above?"

Then he asks, "What numbers are divided by 10 to give the answers above?"

Work with a partner to repeat this exercise.

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Maths Mastery **Decimal Place Value**

Pavel thinks of a decimal fraction:

"I divide it by 10."

"I add 7 hundredths."

"I multiply the number by 100"

"I subtract 2 tenths."

"My new number is 31.4."

"What number did I start with?"

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Maths Mastery **Decimal Place Value**

Calculate the missing digits:

$$\square.3\square2 + 2.43\square = 8.\square29$$



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Maths Mastery **Decimal Place Value**

What must be added to
1.076 to make **1.9**?

What must be added to
1.076 to make **1.09**?



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Maths Mastery **Decimal Place Value**

What is halfway between **6.428** and **3.714**?



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Maths Mastery **Decimal Place Value**

Which of these numbers is closest to **5.523**?

5.891

or

5.124



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Maths Mastery **Decimal Place Value**

Use these 4 digits to make a number that when rounded to the nearest whole number makes 37.

6 3 4 9

Use these digits to make a number that when rounded to the nearest whole number makes 10.

2 9 0 5

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For this one, try and use all the digits!

Answers are on the next page 🔄

Pavel says, "When you multiply a decimal number by 10, the decimal point is moved one place to the left."

$$4.56 \times 10 =$$

Work alone or with a partner to improve Pavel's explanation.

It could be said when multiplying a decimal number by 10, the decimal point is moved one place to the right, but a better answer is to say the digits are moved one place to the left, so the decimal point appears to move one place to the right. E.g. $4.56 \times 10 = 45.6$

Pavel thinks of a decimal fraction:

"I divide it by 10."

"I add 7 hundredths."

"I multiply the number by 100"

"I subtract 2 tenths."

"My new number is 31.4."

"What number did I start with?"

2.46

George writes some decimal numbers:

0.38 2.05 12.9 8.52

He asks, "What numbers are multiplied by 10 to give the answers above?"

0.038 0.205 1.29 0.852

Then he asks, "What numbers are divided by 10 to give the answers above?"

3.8 20.5 129 85.2

Work with a partner to repeat this exercise.

Maths Mastery Decimal Place Value Answers

What is halfway between 6.428 and 3.714?

5.071

Add the two decimal numbers together and divide by two.



Maths Mastery Decimal Place Value Answers

Which of these numbers is closest to 5.523?

5.891

or

5.124

5.891

$$5.891 - 5.523 = 0.368$$

$$5.523 - 5.124 = 0.399$$



Maths Mastery Decimal Place Value Answers

Use these 4 digits to make a number that when rounded to the nearest whole number makes 37.

6 3 4 9

Use these digits to make a number that when rounded to the nearest whole number makes 10.

2 9 0 5

36.94

9.502 or 9.520

Maths Mastery Decimal Place Value Answers

I am a four-digit decimal fraction between 3 and 4. I have 3 decimal places. I am an even number. My thousandths digit is a prime number. My tenths digit is one more than my hundredths. My hundredths digit is 3 times the size of my thousandths digit.

What am I?

3.762

2 is the only even prime number and this information is vital to solving the problem.

Maths Mastery Decimal Place Value Answers

Calculate the missing digits:

$$\square.3\square2 + 2.43\square = 8.\square29$$

$$6.392 + 2.437 = 8.829$$



Maths Mastery Decimal Place Value Answers

What must be added to 1.076 to make 1.9?

What must be added to 1.076 to make 1.09?

0.824

0.014

