

## Arithmetic to practise before reasoning:

$0.1 \times 3 = \square$

$0.2 \times 3 = \square$

$0.3 \times 3 = \square$

Thousands	Hundreds	Tens	Ones	Tenths

*Place three counters on the grid. How many different numbers can you make?*



Vocabulary

Place value

Represents

Decimal

Worth

STEM sentence:

The number is  $\square$  point  $\square$



## Arithmetic to practise before reasoning:

$0.01 \times 3 = \square$

$0.02 \times 3 = \square$

$0.03 \times 3 = \square$

Thousands	Hundreds	Tens	Ones	Tenths	Tenths

*Place three counters on the grid. How many different numbers can you make?*



Vocabulary

Place value

Represents

Decimal

Worth



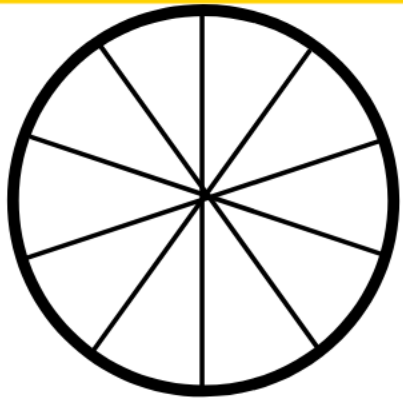
STEM sentence:

The number is  $\square$  point  $\square$

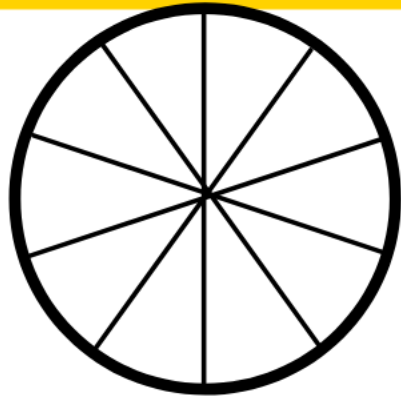
$0.4 \times 4 = \square$

$0.5 \times 5 = \square$

$0.6 \times 6 = \square$



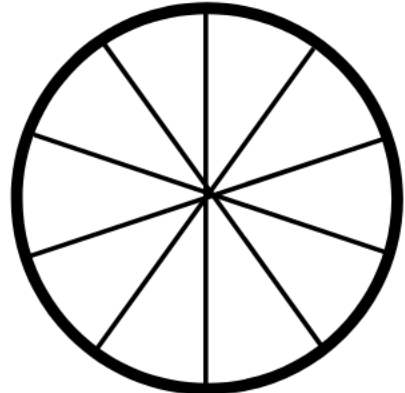
0.4



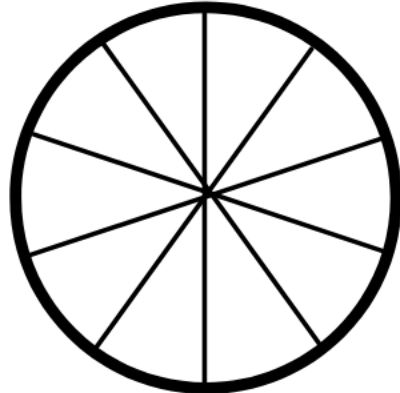
0.5



*Shade in the amount*



0.6



0.7

Vocabulary

Place value

Represents

Decimal

Worth

STEM sentence:

The number is  point



$0.1 \times 2 = \square$

$0.2 \times 2 = \square$

$0.3 \times 3 = \square$

**0.1**  **1.1**

**0.2**  **2.2**

**0.3**  **3.0**

**4**  **0.4**

**0.5**  **5.5**



*Use inequality symbols to make the statements correct*

Vocabulary

Place value

Represents

Decimal

Greater / less than

STEM sentence:

is greater than / less than



Arithmetic to practise before reasoning:

$0.1 \times 2 = \square$

$0.2 \times 2 = \square$

$0.3 \times 3 = \square$

*0.2 3 1.1 2.2 0.1 0.3*

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*Smallest*

*Largest*

*Order from  
smallest to  
largest*



Vocabulary

Place value

Represents

Decimal

Greater / less than

STEM sentence:

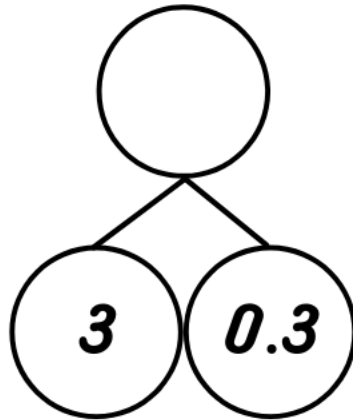
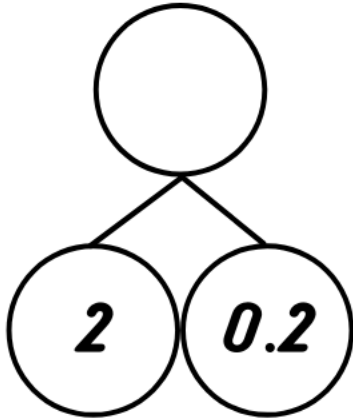
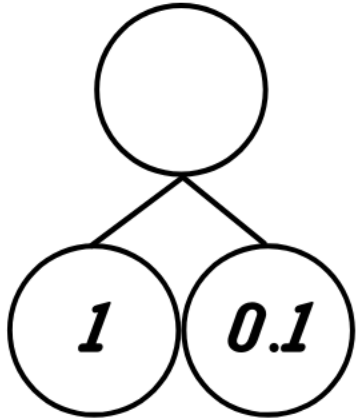
**is greater than / less than**



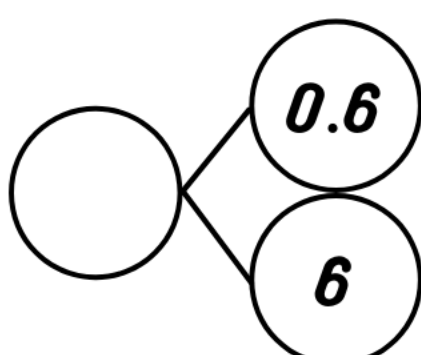
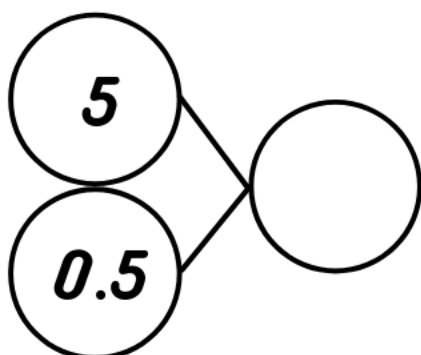
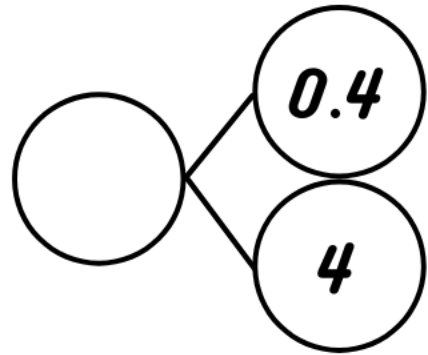
$0.1 + 1 = \square$

$0.2 + 2 = \square$

$3 + 0.3 = \square$



*Complete the part whole models*



Vocabulary

Place value

Represents

Decimal

Worth

**STEM sentence:**

$\square + \square = \square$

$\square - \square = \square$

$0.1 + 4 = \square$

$0.2 + 5 = \square$

$6 + 0.3 = \square$

$1 - 0.1 = \square$

$2 - 0.1 = \square$

$1 - 0.2 = \square$

$2 - 0.2 = \square$

$1 - 0.3 = \square$

$2 - 0.3 = \square$

$1 - 0.4 = \square$

$2 - 0.4 = \square$

$1 - 0.5 = \square$

$2 - 0.5 = \square$

$1 - 0.6 = \square$

$2 - 0.6 = \square$

$1 - 0.7 = \square$

$2 - 0.7 = \square$



*Complete the missing numbers*

Vocabulary

Place value

Represents

Decimal

Worth

**STEM sentence:**

$\square + \square = \square$

$\square - \square = \square$



$0.2 + 4 = \square$

$0.4 + 5 = \square$

$6 + 0.6 = \square$

Previous  
whole  
number

**1.1**

Next  
whole  
number

Previous  
whole  
number

**3.3**

Next  
whole  
number

Previous  
whole  
number

**5.5**

Next  
whole  
number

Complete the  
missing numbers



Vocabulary

Place value

Represents

Decimal

Rounds

STEM sentence:

rounds to **up/down** to





## Arithmetic to practise before reasoning:

$200,000 + 40 = \square$

$200,000 + 400 = \square$

$\square = 200,000 + 4,000$

$220,000 = 100,000 + \square$

$220,000 = 150,000 + \square$

$220,000 = 200,000 + \square$

$220,000 = 215,000 + \square$

*Complete the missing numbers*



Vocabulary

Place value

Represents

Addition

Inequality

STEM sentence:

$\square + \square = \square$



$200,000 + 50 = \square$

$200,000 + 500 = \square$

$\square = 200,000 + 5,000$

Vocabulary

Place value

Represents

Calculate

Digits



$2\square0,000 > \square0\square,000$

*Using the digit cards, how many ways can you make the inequality statement correct?*



STEM sentence:

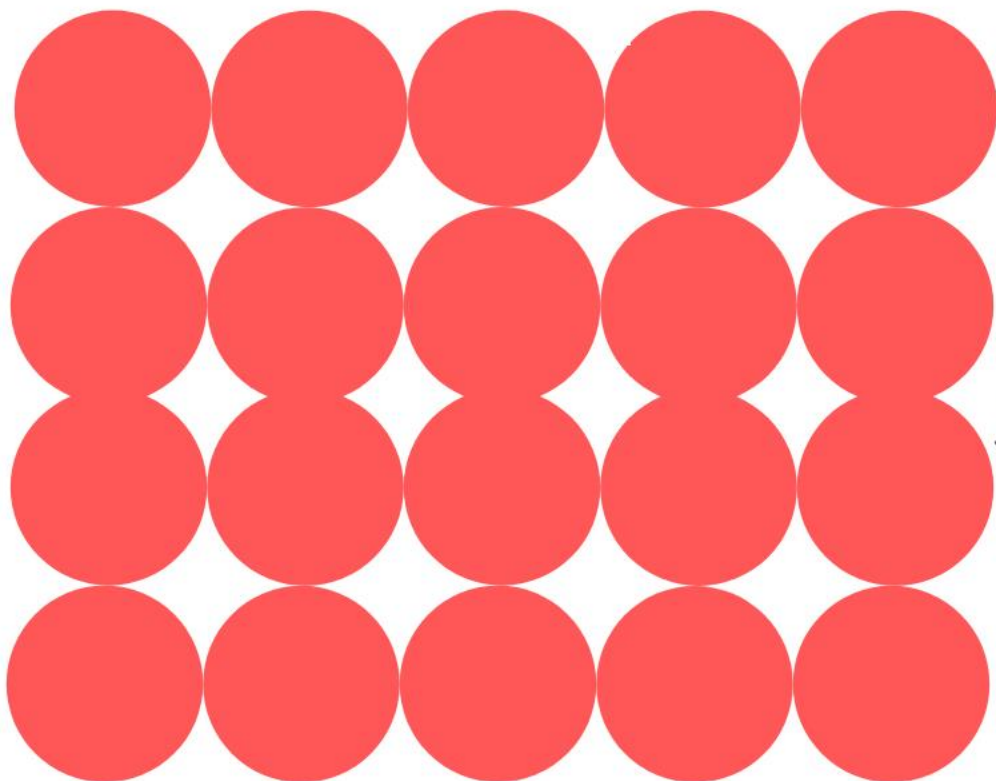
$\square \text{ is greater than } \square$



$5 \times 10 = \square$

$5 \times 11 = \square$

$\square = 5 \times 12$



*What does the array represent?*

Vocabulary

Multiply

Times

Factor

Product



**STEM sentence:**

$\square \times \square = \square$

## Arithmetic to practise before reasoning:

$24 = \square \times \square$

$24 = \square \times \square$

$24 = \square \times \square$

Vocabulary

Multiply

Times

Factor

Product

*Using 24 counters, how many arrays can you make?*



**STEM sentence:**

$\square \times \square = \square$



$5 \times 4 = \square$

$4 \times 5 = \square$

$\square = 5 \times 5$

20			
5	5	5	5

20				
4	4	4	4	4



*What is the same? What is different?*

Vocabulary

Multiply

Times

Factor

Product



STEM sentence:

$\square \times \square = \square$

## Arithmetic to practise before reasoning:

$48 = \square \times \square$

$48 = \square \times \square$

$48 = \square \times \square$

Vocabulary

Multiply

Times

Factor

Product

*Using 48  
counters, how  
many arrays can  
you make?*



**STEM sentence:**

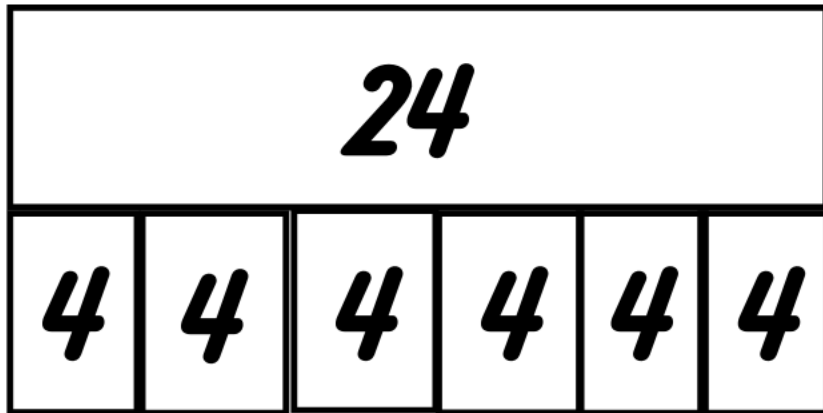
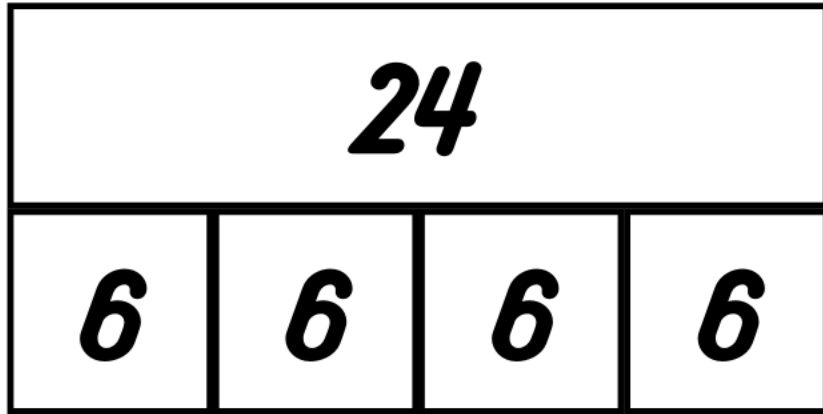
$\square \times \square = \square$



$5 \times 4 = \square$

$4 \times 5 = \square$

$\square = 5 \times 5$



*What is the same? What is different?*

Vocabulary

Multiply

Times

Factor

Product

STEM sentence:

$\square \times \square = \square$

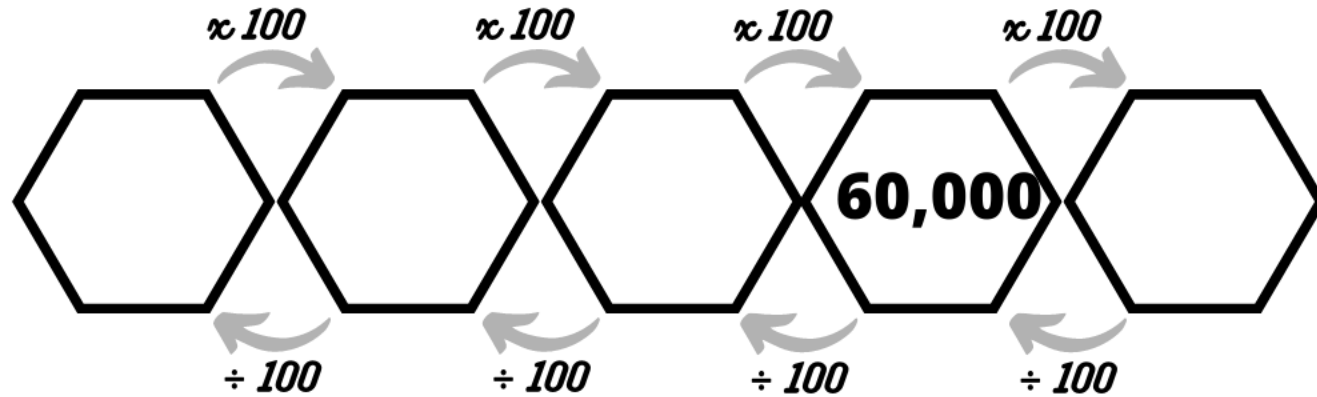
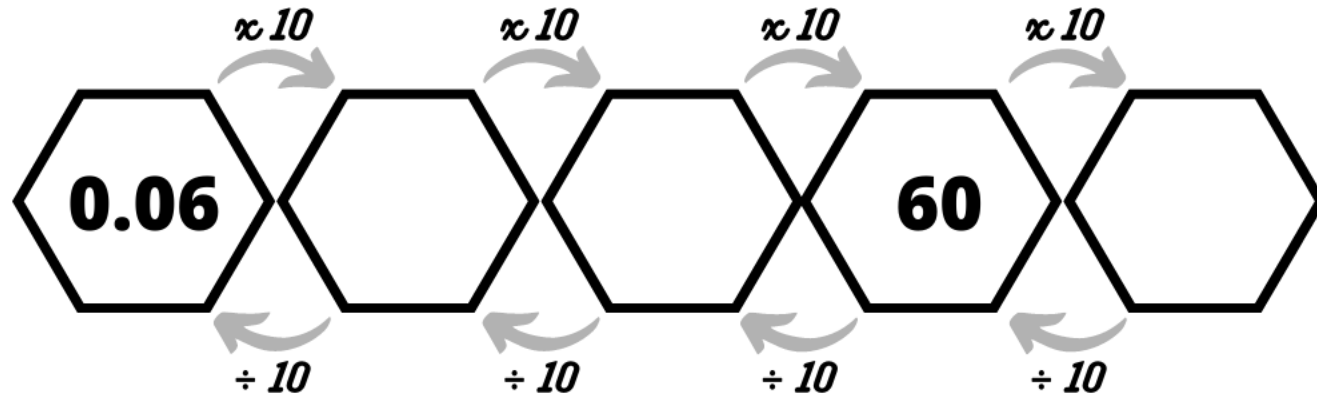


## Arithmetic to practise before reasoning:

$5 \times 10 = \square$

$50 \times 10 = \square$

$\square = 500 \times 10$



*Complete the pattern*



Vocabulary

Additive

Multiplicative

Relationship

Inverse

STEM sentence:

$\square \times \square = \square$

$\square \div \square = \square$



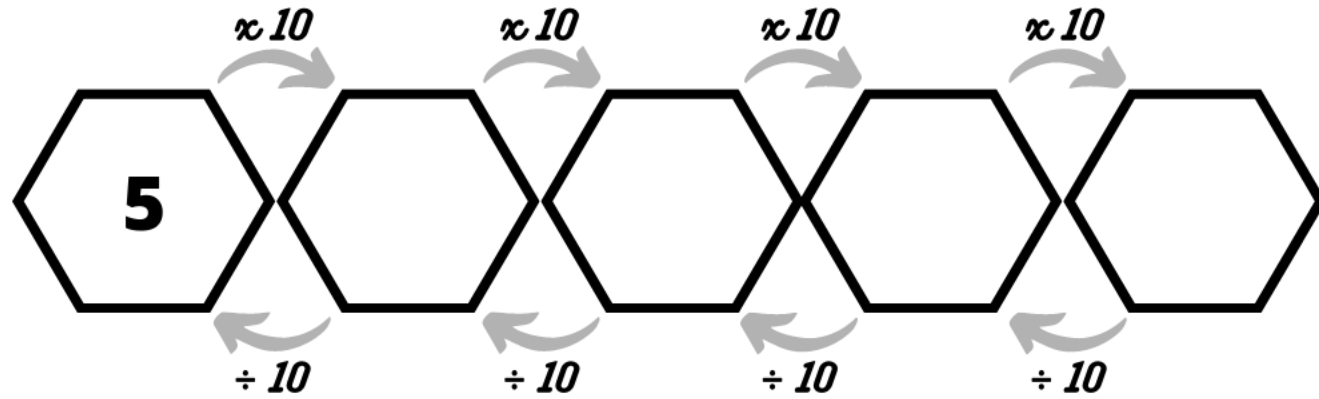


## Arithmetic to practise before reasoning:

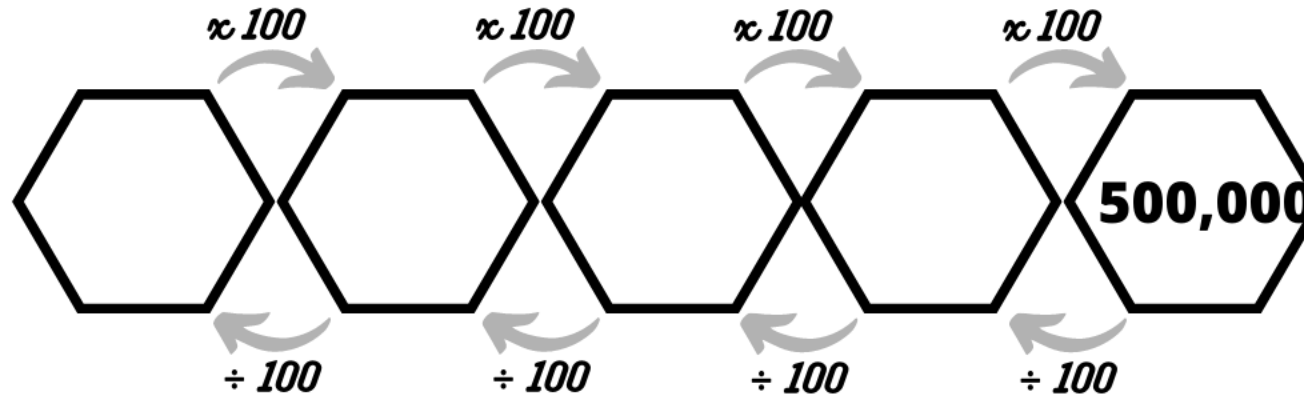
$5 \div 10 = \square$

$50 \div 10 = \square$

$\square = 500 \div 10$



*Complete the pattern*



Vocabulary

Additive

Multiplicative

Relationship

Inverse

STEM sentence:

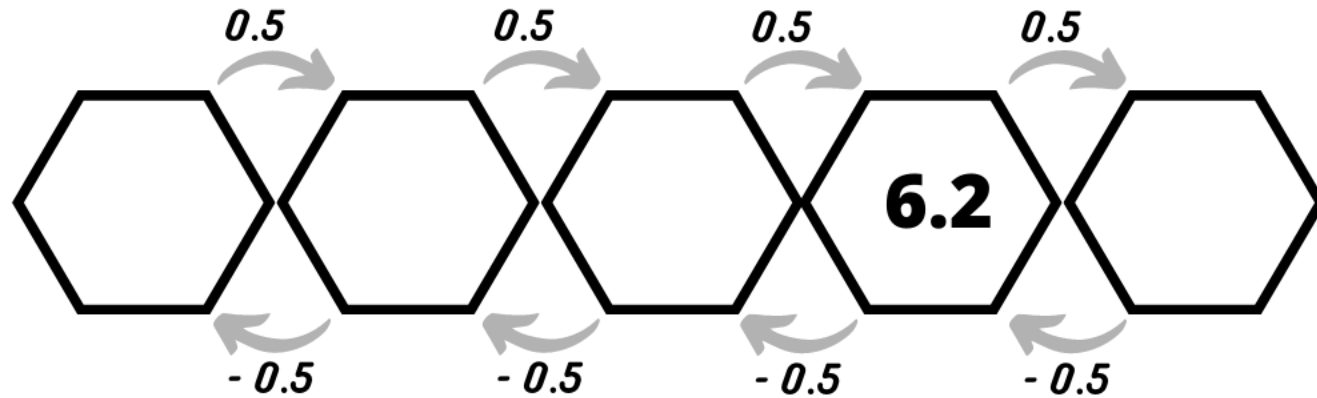
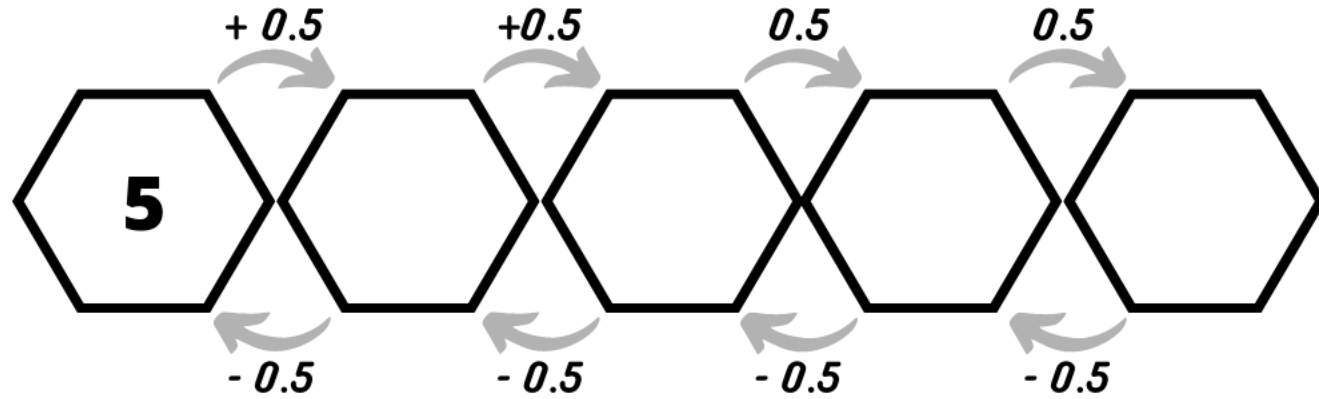
$\square \times \square = \square$

$\square \div \square = \square$

$2 + 0.5 = \square$

$20 + 0.5 = \square$

$\square = 200 + 0.5$



*Complete the pattern*



Vocabulary

Additive

Multiplicative

Relationship

Inverse

**STEM sentence:**

$\square + \square = \square$

$\square - \square = \square$

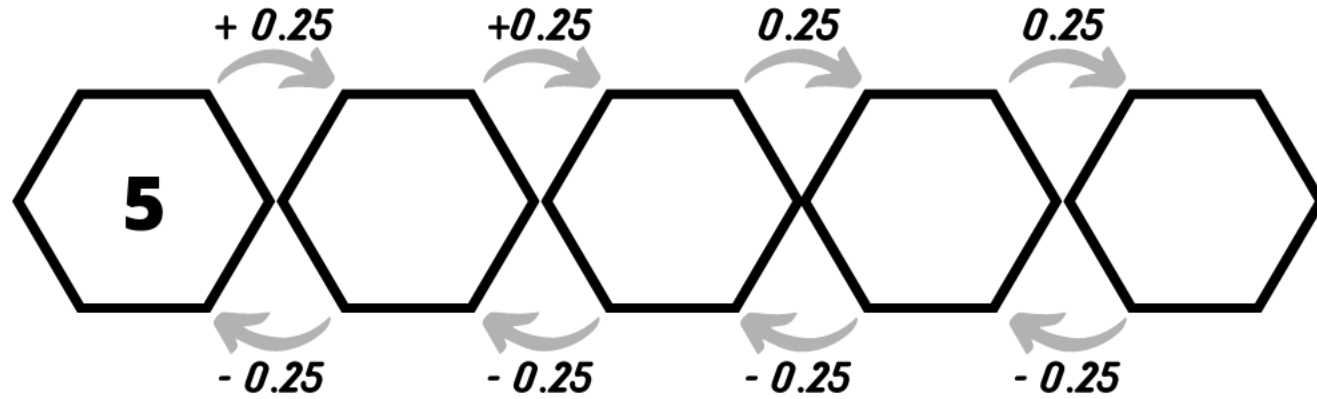


## Arithmetic to practise before reasoning:

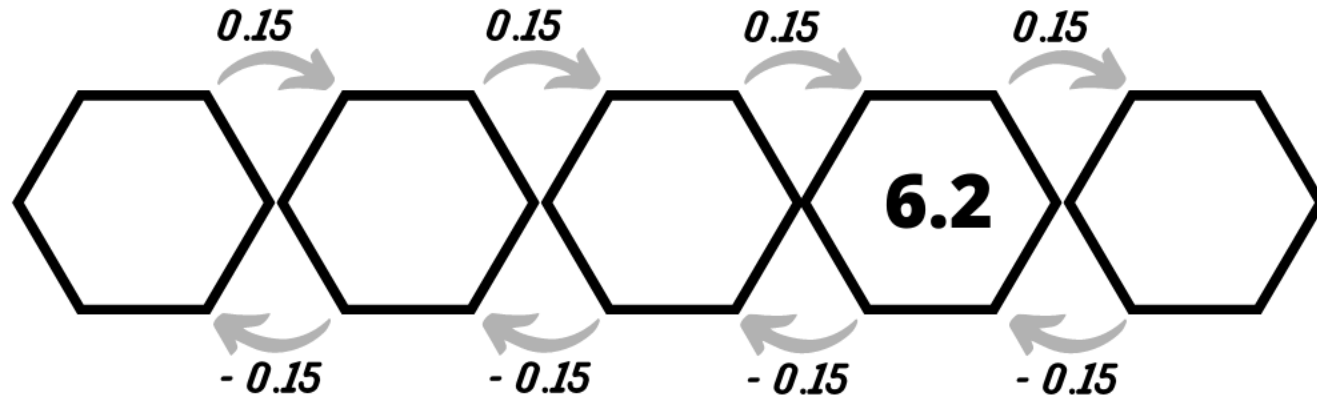
$2 - 0.5 = \square$

$20 - 0.5 = \square$

$\square = 200 - 0.5$



*Complete the pattern*



Vocabulary

Additive

Multiplicative

Relationship

Inverse

**STEM sentence:**

$\square + \square = \square$

$\square - \square = \square$



$3 + \square = 12$

$30 \times \square = 120$

$\square = 300 + 1200$

$500 + \square = 2000$

$500 \times \square = 2000$

$750 + \square = 1500$

$750 \times \square = 1500$

$500 + \square = 3000$

$500 \times \square = 3000$

$750 + \square = 3000$

$750 \times \square = 3000$

*Complete the pattern*



Vocabulary

Additive

Multiplicative

Relationship

Inverse

STEM sentence:

$\square + \square = \square$

$\square \times \square = \square$



$1.4 + 1.6 = \square$

$14 + 16 = \square$

$\square = 140 + 160$

$8.1 + 1.9 = \square$

$8.9 + 1.1 = \square$

$5.1 + 1.9 = \square$

$5.9 + 1.1 = \square$

*Complete the calculations using compensation*



Vocabulary

Compensation

Equivalence

Relationship

Decimals



**STEM sentence:**

$\square + \square = \square$

$$1.4 + 1.6 = \square + 1 \quad 14 + 16 = \square + 10 \quad \square + 100 = 140 + 160$$

$$8.1 + 1.9 = \square + 8$$

$$8.9 + 1.1 = \square + 8$$

$$5.1 + 1.9 = \square + 6$$

$$5.9 + 1.1 = \square + 6$$

*Complete the calculations using compensation*



Vocabulary

Compensation

Equivalence

Relationship

Decimals



STEM sentence:

$$\square + \square = \square$$

$$1.45 + 1.6 = \square + 1 \quad 145 + 16 = \square + 10 \quad \square + 150 = 140 + 160$$

$10.25 + 0.5 =$



$10.25 + 1.5 =$



$10.25 + 2.5 =$



$10.25 + 3.5 =$



*Complete the calculations using compensation*



Vocabulary

Compensation

Equivalence

Relationship

Decimals



STEM sentence:

$$\square + \square = \square$$

$43 - 12 = \square$

$\square = 43 - 13$

$\square = 43 - 14$

Vocabulary



*Use the digits cards to create the biggest difference*

Digit



Difference

Relationship

Subtract

**STEM sentence:**

$\square + \square = \square$

$\square - \square = \square$





$43 + 12 = \square$

$\square = 43 + 13$

$\square = 43 + 14$

Vocabulary



*Use the digits cards to create the biggest difference*

Digit



Sum

Relationship



**STEM sentence:**

$\square + \square = \square$

$\square - \square = \square$

Addition


$10 - 2 = \square$

$\square = 100 - 2$

$\square = 1000 - 2$

If  $10 - 5 =$  

Then  $100 - 5 =$  

So  $1000 - 5 =$  

And  $10,000 - 5 =$  

*Complete the calculations*



Vocabulary

Digit

Difference

Relationship

Subtraction

STEM sentence:

$\square + \square = \square$

$\square - \square = \square$



$10 + 2 = \square$

$\square = 100 + 2$

$\square = 1000 + 2$

If  $10 + 5 = \square$

Then  $100 + 5 = \square$

So  $1000 + 5 = \square$

And  $10,000 + 5 = \square$

*Complete the calculations*



Vocabulary

Digit

Sum

Relationship

Addition

STEM sentence:

$\square + \square = \square$

$\square - \square = \square$



$10.2 + 0.5 = \square$

$\square = 10.25 + 0.5$

$\square = 10.25 + 0.125$

$10.25 + 0.2 = 10.27$

$10.25 + 0.3 = 10.28$

$10.25 + 0.4 = 10.29$



*What are the mistakes?*

Vocabulary

Place value

Sum

Relationship

Addition

STEM sentence:

$\square + \square = \square$

$\square - \square = \square$



$10.2 - 0.5 = \square$

$\square = 10.25 - 0.5$

$\square = 10.25 - 0.125$

$10.25 - 0.2 = 10.23$

$10.25 - 0.3 = 10.22$

$10.25 - 0.4 = 10.21$



*What are the mistakes?*

Vocabulary

Place value

Difference

Relationship

Subtract

STEM sentence:

$\square + \square = \square$

$\square - \square = \square$

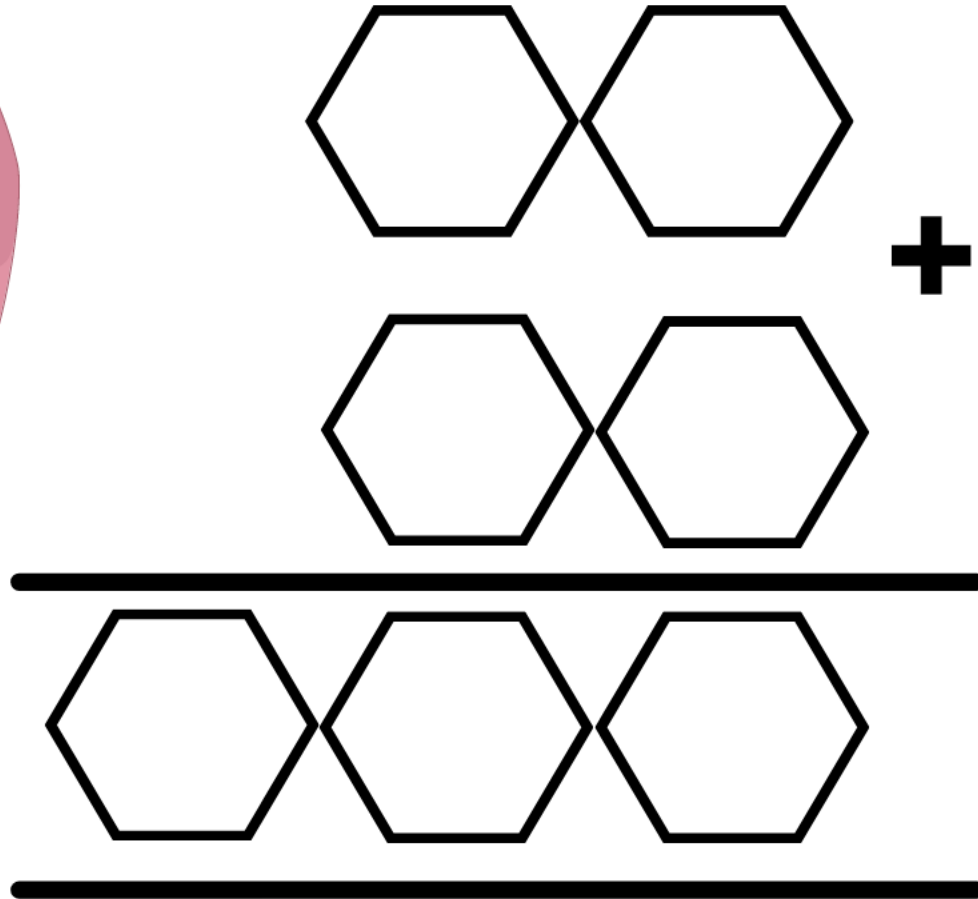


$51 + 52 = \square$

$\square = 52 + 53$

$\square = 53 + 54$

*How many ways can you make this correct?*



Vocabulary

Place value

Sum

Relationship

Addition

**STEM sentence:**

$\square + \square = \square$

$\square - \square = \square$

