<u>25.02.21   Fluent in Five</u>

1) 15% of 762 =
2) 60% x 194 =
3) 89% of 840 =
4) 7184 x 35 =
5) 6780 ÷ 15 =
6) 1.47 x 1000 =

1) 10% of 678 =
2) 30% of 950 =
3) 25% of 500 =
4) 848 x 4 =
5) 1015 ÷ 7 =
6) 37.1 - 1.89 =

# <u>WALT form equations</u>

https://vimeo.com/502633670

In previous lessons we have formed expressions. What is the difference?

Expression

$$x + 5$$

This would have different outcomes (answers) dependent on the value of $x$.
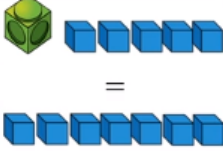
Equation

$$x + 5 = 12$$

In an equation, $x$ has a specific value because the equation must equal 12.

x stands for a specific unknown value.

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This is how we form an equation



| Words | Concrete | Algebra |
|---|---|---|
| I think of a number | | $x$ |
| Add 5 | | $x + 5$ |
| My answer is 7 | | $x + 5 = 7$ |

## Let's try this together

= $x$          = 1

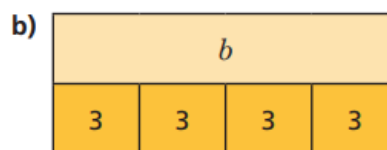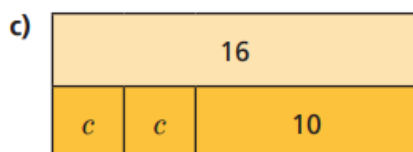| Words | Concrete | Algebra |
|---|---|---|
| I think of a number | | |
| Multiply by 2 | | |
| Add 3 | | |
| My answer is 7 | | |

£2    £t    £p

£3    £y

The total cost of the rugby ball and the panda is £6
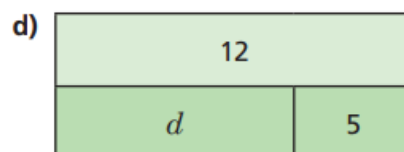
Form an equation to represent this information.

The total cost of a train, two bucket and spades and one t-shirt is £18

Write equations to represent the bar models.

a)

| 14 | |
|---|---|
| $a$ | $a$ |

b)

| $b$ | | | |
|---|---|---|---|
| 3 | 3 | 3 | 3 |

_____    _____

c)

| 16 | | |
|---|---|---|
| $c$ | $c$ | 10 |

d)

| 12 | |
|---|---|
| $d$ | 5 |

_____    _____
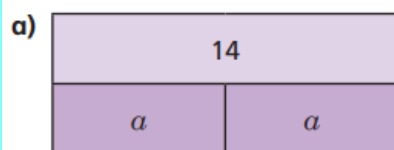
Is there more than one possible equation for each?

## Varied Fluency

▣ Amir represents a word problem using cubes, counters and algebra.

| Words | Concrete | Algebra |
|---|---|---|
| I think of a number | | $x$ |
| Add 3 | | $x + 3$ |
| My answer is 5 | | $x + 3 = 5$ |

Complete this table using Amir's method.

| Words | Concrete | Algebra |
|---|---|---|
| I think of a number | | |
| Add 1 | | |
| My answer is 8 | | |

▣ A book costs £5 and a magazine costs £$n$
The total cost of the book and magazine is £8
Write this information as an equation.

▣ Write down algebraic equations for these word problems.
- I think of a number, subtract 17, my answer is 20
- I think of a number, multiply it by 5, my answer is 45

Rosie thinks of a number. She adds 7 and divides her answer by 2

Teddy thinks of a number. He multiples by 3 and subtracts 4

Rosie and Teddy think of the same number.
Rosie's answer is 9
What is Teddy's answer?

Rosie and Teddy think of the same number again. This time, they both get the same answer.

Use trial and improvement to find the number they were thinking of.

Eva spends 92p on yo-yos and sweets

She buys $y$ yo-yos costing 11p and $s$ sweets costing 4p.

Can you write an equation to represent what Eva has bought?

How many yo-yos and sweets could Eva have bought?

Can you write a similar word problem to describe this equation?

$$74 = 15t + 2m$$