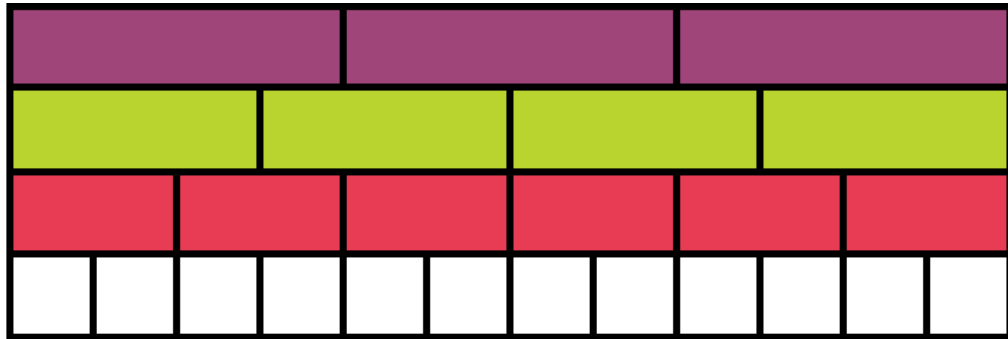


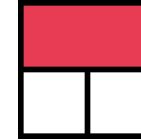
Y7 Mastery: Unit 6 – Expressions, Equations and Inequalities (Part 2)

Forming Equations

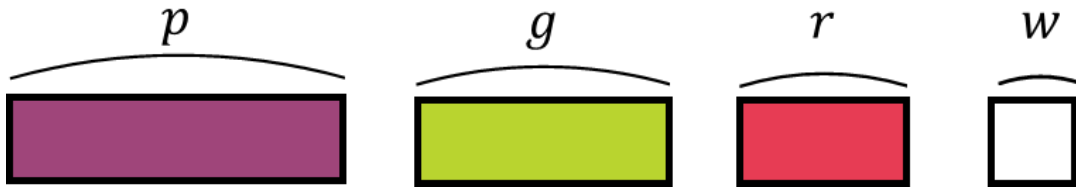
You can create a range of equations using the model below:



$$r = 2w$$



$$g - r = w$$

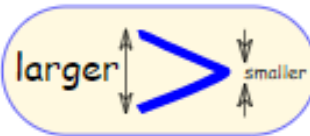


You can make a lot more equations from this model!

Creating Inequalities

You can create a range of inequalities using the model above:

Equality and Inequality



$=$ equal

\neq not equal

$>$ greater than

\geq greater than or equal

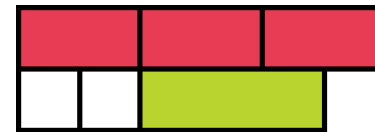
$<$ less than

\leq less than or equal

$$p > g$$



$$g + 2w < 3r$$



Keyword/Skill	Definition/Tips
Equation	A statement showing that two expressions are equal.
Preserving an equation	Making sure the value on the left hand side of the equals sign is the same as the value on the right hand side (it balances)
Equality	When two things are equal i.e. $10 + 3 = 15 - 2$
Inequality	Compares two values which are not equal , showing which one is greater than or less than
Perimeter	The distance of the outside of the shape (add all the sides together)

Other Topics/Units this could appear in:

- Expressions & substituting into simple formulae
- Solving Equations
- Subject of
- Inequalities

Y7 Mastery: Unit 6 – Expressions, Equations and Inequalities (Part 2)

Preserving Equations (challenge)

We can use a **known equation** to form other related equations.

$$3 \times 9 = 10 + 17$$

I added 8 to each expression.

I multiplied each expression by 10.

$$3 \times 9 + 8 = 10 + 17 + 8$$

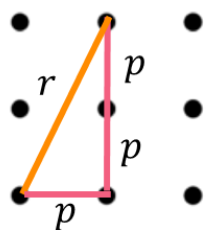
$$10 \times 3 \times 9 = 10(10 + 17)$$

This is called **persevering an equation**, making sure what is on the left of the equals sign has the same value of what is on the right!

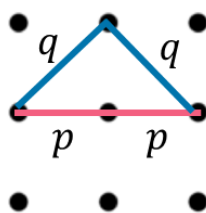
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Inequalities with Shape

You can compare lengths of a shape using an inequality



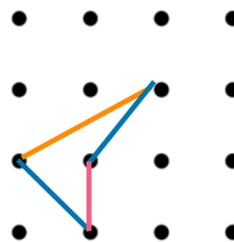
$$3p > r$$



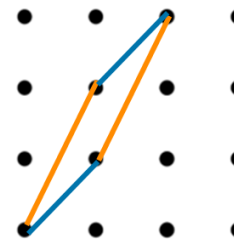
$$2p < 2q$$

You can compare perimeters of shapes using an inequality

$$r + 2q + p$$



$$2(q + r)$$



$$r + 2q + p < 2(q + r)$$

Other Topics/Units this could appear in:

- Expressions & substituting into simple formulae
- Solving Equations
- Subject of
- Inequalities