



Year 11 Maths Learning Journey

Spring Term 6

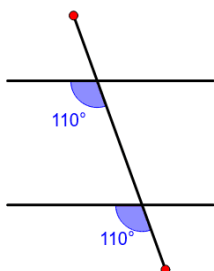
Revision and communication: Show that

Core knowledge	Reference
Show that with number “How can you determine whether two fractions are equivalent?”	WORKSHEET
Show that with algebra “What’s the same and what’s different about solving an equation and an inequality?”	WORKSHEET
Show that with shape “What area formulae do you know? What does each letter represent?”	WORKSHEET
Show that with angles “What’s the difference between corresponding and corresponding-interior angles?”	WORKSHEET
Show that with data “Which averages are useful in different situations? Why?”	WORKSHEET
Show that with vectors (H) “Can a translation always, sometimes or never be described as a vector?”	WORKSHEET
Show that with congruent triangles “What are the four sets of conditions that show a pair of triangles are congruent? What does each letter stand for in the abbreviated forms?”	WORKSHEET
Form proof with congruent triangles (H) “What’s the same and what’s different about showing that a pair of triangles are similar triangles and showing that a pair of triangles are congruent?”	WORKSHEET

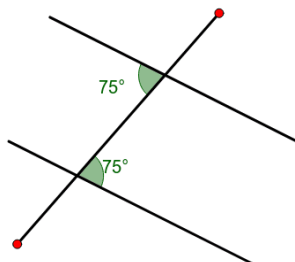
Learning Checkpoints

LC Title	Completed	Dirt
Show that		

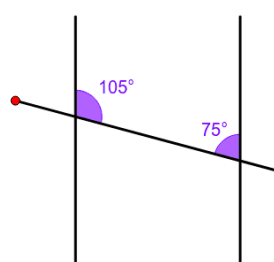
Corresponding Angles



Alternate Angles



Interior Angles



Key Vocabulary:

Adjacent: two angles are adjacent if they have a common side and a common vertex.

Alternate: see diagram

Circumference: The distance around a circle (its perimeter).

Area: a measure of the size of any plane surface. Area is usually measured in square units.

Co-interior: see diagram

Common: Values that are the same.

Component: a connected subset of a set, not contained in any other connected subset of the set

Congruent: The same shape and size (but we are allowed to flip, slide or turn).

Corresponding: see diagram

Equation: A mathematical statement showing that two expressions are equal.

Equivalent: equal in value, amount, function, meaning, etc.

Expression: algebraic expression consists of unknown variables, numbers and arithmetic operators.

Identity: Identities are sometimes indicated by the triple bar symbol $\equiv$ instead of $=$, the equals sign. Formally, an identity is a universally quantified equality.

Interquartile range: describes the middle 50% of values when ordered from lowest to highest.

Mean (average): The mean is the average of the numbers. It is easy to calculate: add up all the numbers, then divide by how many numbers there are

Median: The middle of a sorted list of numbers.

Mode (average): the value that occurs most often

Parallel: In Euclidean geometry, always equidistant. Parallel lines, curves and planes never meet however far they are produced or extended.

Product: The result of multiplying one number by another.

Range: The difference between the greatest value and the least value in a set of numerical data.

Sequence: A succession of terms formed according to a rule.

Similar: Two figures are said to be similar if they are the same shape

Simplest form: A fraction that has been reduced fully.

Surd: an irrational number expressed as the root of a natural number

Transformation: Transformation means to change. Hence, a geometric transformation would mean to make some changes in any given geometric shape.

Translation: A transformation in which every point of a body moves the same distance in the same direction.
A transformation specified by a distance and direction

Trigonometry: the branch of mathematics concerned with specific functions of angles and their application to calculations

Vector: The instruction that translates a shape up, down or from side to side but it does not change its appearance in any other way.