

Command words

Command words are the words and phrases used in exams and other assessment tasks that tell students how they should answer the question.

The following command words are taken from Ofqual's official list of command words and their meanings that are relevant to this subject. In addition, where necessary, we have included our own command words and their meanings to complement Ofqual's list.

Show that

Construct a logical argument that shows that the given information leads to the printed result.

Prove that

Requires rigour. Formal use of the methods of mathematical argument is being assessed, eg 'Prove by contradiction that...', 'Prove by induction that...'. Sometimes will refer to a standard result for the specification.

Verify that

Requires a demonstration that something is correct or incorrect in a given case.

Deduce that

Like 'Show that' except that it specifically indicates that a previous result (or results) in the question is relevant.

Find/determine

Obtain an answer.

Work out/calculate

A calculation or calculations are required.

Write down/state/give

Intermediate working out will not be expected and should not be necessary.

Explain

A written explanation is required, although this can include, or be substantially, arithmetic, algebraic, diagrammatic or graphical work as appropriate.

Factorise

Write the expression as a product of irreducible factors.

Express

Give an answer in the form described in the question.

Simplify

Cancel down fractions (possibly algebraic), collect like terms and use standard simplifying results from within the specification (eg $\ln e = 1$).

Solve

Find all values that satisfy the given equation or inequality.

Expand

Multiply out using the distributive law or binomial theorem.

Differentiate

Find the derivative of.

Integrate

Find the integral of.

Describe

Give full details of.

Sketch

A sketch need not be a completely accurate drawing, but should illustrate all the significant features of the graph/shape.

Draw

Draw neatly and accurately.

Plot

Accurately place points on a graph.

Name

Give the technical term for.

Construct

Use appropriate information or premises to form (may be related to proof).

Estimate

Perform a calculation leading to an approximate answer.

Forecast

Assuming the current trend continues, find.

Investigate/examine/test/carry out (a test)

Inquire into eg by performing a hypothesis test that will lead to a conclusion relating to the context of the question. May be used in other contexts apart from statistics, eg 'examine the argument...'

Interpret

Determine what the results mean in the context of the question.

Justify

Give working or reasons to support your answers.

Comment on

Describe a notable feature of the situation in the question.

Compare

Describe the significant similarities or differences between.

Advise/instruct

What does the person in the question need to know? What would you tell them if you were able?