



INVESTIGATE THE WORLD

How well does the student use mathematics to model and investigate a given issue, situation, or event?

- **MATH6-8.INV1.MODEL.** Designs a mathematical model to illustrate a situation or to diagram a problem, or applies a model that has been successful previously in similar situations.
- **MATH6-8.INV2.RLTNS.** Describes how the mathematical relationships in a model reflect a situation or the elements of a problem, or predicts when and/or how a model could be generalized to similar situations.
- **MATH6-8.INV3.RPRSN.** Distinguishes between appropriate mathematical tools, procedures, and representations to explore the issue, situation, or event and can articulate why a particular tool or procedure was selected.
- **MATH6-8.INV4.SELEC.** Generates a range of appropriate strategies and differentiates between applicability of the strategies to the given situation.
- **MATH6-8.INV5.STRTG.** Selects and applies a reasonable strategy to verify the solution and differentiates appropriateness of possible strategies.

RECOGNIZE PERSPECTIVES

How well does the student recognize the impact of his/her mathematical analyses on themselves and others?

- **MATH6-8.PERS1.ARGUE.** Draws a conclusion or generates an incomplete argument to justify a conclusion only partially supported by the mathematical data or information.
- **MATH6-8.PERS2.VRIFY.** Seeks external validation or verification of results of independent work or collaboration and outlines conclusions or processes needing verification.
- **MATH6-8.PERS3.IMPLC.** Expresses and evaluates some implications of a conclusion, conjecture, or argument arising from a mathematical model or process and uses data or information from the model as support.
- **MATH6-8.PERS4.PERSP.** Recognizes, articulates, and addresses different perspectives using precise mathematical language when appropriate.
- **MATH6-8.PERS5.POSTN.** Articulates a valid conjecture that reflects the mathematical process procedure model that results in a mathematically valid conclusion and engages in mathematical discourse to justify conjecture.

COMMUNICATE IDEAS

How clearly and accurately does the student communicate and defend his/her mathematical thinking, approaches, representations, solution, and decisions?

- **MATH6-8.COMM1.COMM.** Explains and justifies complex mathematical reasoning, concepts, procedures, and relationships using precise mathematical language in a way that is mostly organized and sequenced.
- **MATH6-8.COMM2.DEFNS.** Defends a conclusion, conjecture, decision, or argument with some mathematical concepts, procedures, or data from the model using precise mathematical language.
- **MATH6-8.COMM3.SYMBL.** Decontextualizes a mathematical idea using mathematical terms, symbols, and conventions, and begins to contextualize by some evaluation of the process using mathematical language.
- **MATH6-8.COMM4.GRAMM.** Engages in clear oral and written mathematical discourse using mathematical terminology, symbols, and conventions correctly and generally free of distracting errors in grammar, usage, and punctuation.
- **MATH6-8.COMM5.MEDIA.** Selects an appropriate medium and uses it in an effective way to communicate mathematical ideas.

TAKE ACTION

How well does the student advocate for, engage in, and reflect on plausible and responsible actions that are supported by his/her mathematics?

- **MATH6-8.ACT1.ADVCT.** Advocates for a course of action that is plausible, responsible, and supported by mathematics.
- **MATH6-8.ACT2.ACTN.** Identifies a plan of action supported by the mathematics that is mostly viable, manageable, and/or responsible that is related to the conclusion, argument, or decision.
- **MATH6-8.ACT3.IMPRT.** Describes the importance of the plan of action, with some connection to the global community, supported by the data or conclusions.