

Pennsylvania Department of Education
Mathematics Problem Solving – Grade 11
Performance Level Descriptors

Within the context of grade-level appropriate settings and content, an eleventh grade student performing at the **Basic** level of problem solving skills will:

apply basic procedures and reasoning to solve routine problems; differentiate between necessary and unnecessary information; translate simple scenarios into mathematical statements; confirm solutions by “checking” work.

Within the context of grade-level appropriate settings and content, an eleventh grade student performing at the **Proficient** level of problem solving skills will:

select and use appropriate solution techniques; use appropriate grade level mathematical language to communicate procedures and results; represent data and concepts in different forms; use informal proof to justify solutions; summarize solutions and conclusions.

Within the context of grade-level appropriate settings and content, an eleventh grade student performing at the **Advanced** level of problem solving skills will:

make connections across areas of mathematics; use formal reasoning and proof to justify solutions; devise and communicate complex problem solving strategies; evaluate validity of solutions.