

12. PROBLEM SOLVING

Problem solving is the most difficult area of mathematics for most students. Students can be helped to deal with problems in a calm and systematic manner -- not that you will solve every question, but that you will tackle problems wisely.

TYPES OF QUESTIONS

Broadly speaking, we can categorize EQAO mathematics problems into two categories – Simple and Complex.

Simple (not necessarily easy) questions are ones that require one thinking action, such as one-step problems.

Here are a couple of examples:

1. Make this number sentence true:
 $4 + ? = 16$
2. Which fraction is the biggest?
 $1/2, 1/3, 1/4, 1/5$

The answer for question 1 is 12.

You have to know that the answer is found by subtracting 4 from 16 (one step).

For question 2 the answer is 1/2. You need to know that a bigger denominator means that the fraction is smaller (if the numerators are the same). 1/2 a pie is bigger than 1/5 of a pie.

Complex questions require two or more thinking actions, such as multi-step problems. These questions usually include more data than simple questions.

It's not important that you can identify or label which question is simple or complex. Rather, it's important in the case of complex questions that you understand and go through the steps necessary to find the answer.

It's very important to read questions carefully, underline key words and have a strategy.

On the next page, you will find Dr. Don's step-by-step strategies for solving problems, and some examples of easy and difficult problems.

