EQUATIONS AND INEQUALITIES:
MAKING MATHEMATICS ACCESSIBLE TO ALL

Solving problems using mathematics is more important than ever…

On average, 38% of adults across OECD countries use or calculate fractions, decimals or percentages at work.

On average, 19% of students across OECD countries have never heard the concept of arithmetic mean.

Adults with high numeracy skills are more likely to be employed, earn high wages and enjoy good health.

... However, students aren’t familiar with basic mathematics concepts and they rarely practice applying their knowledge to real-world problems.

On average, 21% of students are exposed to real-world problems requiring reasoning, such as interpreting trends in a chart.

And only 21% of students are exposed to real-world problems requiring reasoning, such as interpreting trends in a chart – almost two years of schooling – than students who aren’t.

Exposure to mathematics counts for performance...

Students who are more frequently exposed to formal mathematics tasks, such as equations, perform 2 years higher in PISA – equivalent to almost two years of schooling – than students who aren’t.

and inequalities in access to maths content are linked to inequalities in performance.

Socio-economically advantaged students are 24 percentage points more likely to understand the concept of linear equations than disadvantaged students.

19% of the performance gap between advantaged and disadvantaged students is related to familiarity with mathematics.

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How to make mathematics accessible to all

- Increase focus and coherence of mathematics curricula

- Reduce the impact of tracking and ability grouping

- Help teachers teach mixed-ability classes

- Design tasks that are engaging for all and develop problem-solving skills

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