

Percentages, Fractions & Decimals

Topic: Number

A structured problem-solving lesson on fractions, percentages and decimals.

Year Group: 3rd Year
Level: Ordinary

Presenting the Problem

In an election 80% of 600 people voted for a particular party. Can you work out how many people voted for that party?

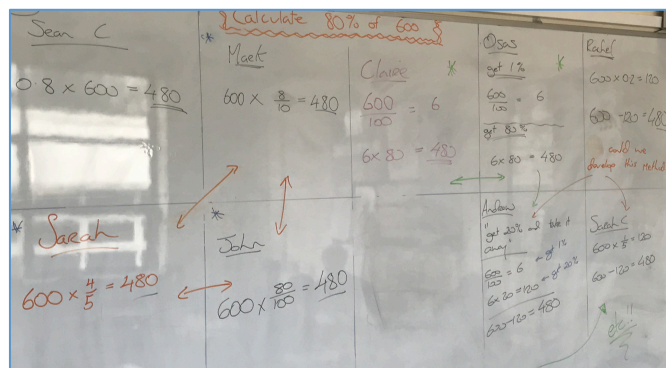
Find your answer using as many different methods you can.



The Board Plan

Anticipated Student Responses

- | | |
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| R1. $0.80 \times 600 = 480$ | R8. $(8/10) \times 600$ |
| R2. I only know one way | R9. $(4/5) \times 600$ |
| R3. "get 1% first": $600 / 100 = 6$
"get 80%": $6 \times 80 = 480$ | R10. We could get 20% and take it away |
| R4. "get 1 hundredth first": $600 / 100 = 6$
"get eighty hundredths": $6 \times 80 = 480$ | R11. We could get 1 fifth and take it away |
| R5. "get 1 tenth first": $600 / 10 = 60$
"get 8 tenths": $60 \times 8 = 480$ | R12. We could get 0.2 of 600 and take it away |
| R6. "get 1 fifth first": $600 / 5 = 120$
"get 4 fifths": $4 \times 120 = 480$ | R13. Similar methods using subtraction |
| R7. $(80/100) \times 600$ | R14. I don't understand the question – wording |



Prior Knowledge & Posing the Task
5 minutes

Students working on the problem
15 minutes

Presentation of Solutions & Ceardaíocht
15 minutes

Summing up & Reflection
5 minutes

Reflecting on the Learning

Using the *structured problem solving* approach effectively requires a change in classroom culture. Student motivation and building self-confidence in their own ability will take time to nurture.

The discussion element of the lesson was incredibly positive, we observed very genuine learning with the majority of students making insightful links and showing a good understanding of the topic.

In conclusion we feel that the lesson will be a considerably beneficial lesson for the revision of fractions, percentages and decimals.



Lesson proposal developed by Thomas Campbell and Selena McEvoy, with thanks to Liam Doheny MDT and the students of Coláiste Rís, Dundalk

To download this lesson plan visit www.projectmaths.ie/mc2017

