

# Math Competency Assessment



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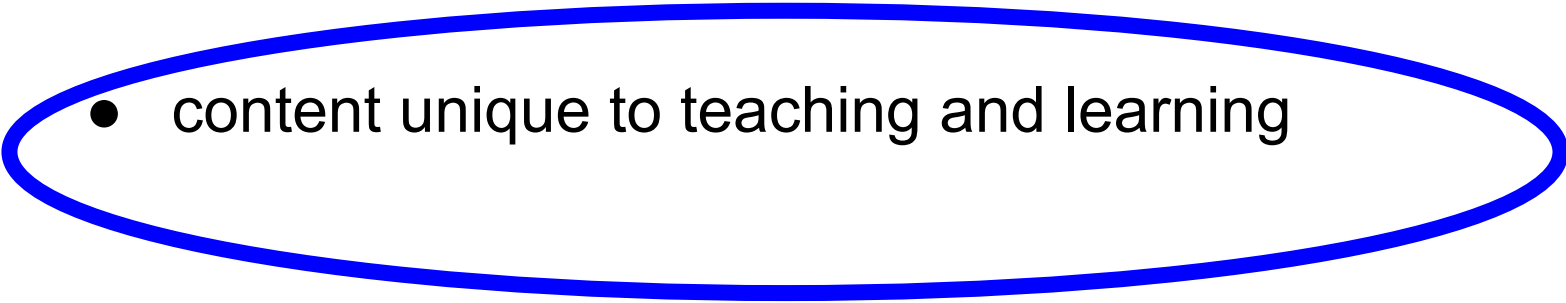
*We are making sense of the **Math Competency Assessment** to enhance our confidence and competence as aspiring teachers of mathematics.*



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Teachers require an understanding of...

- students
  - effective practices unique to teaching and learning
  - content unique to teaching and learning
- 

# Big Ideas about the MCA...

- MCA consists of 15 **reasoning** questions
  - Open-response
  - Each question is worth 3 marks
  - Show all your thinking
- MCA aligns to Ontario Curriculum of Mathematics (grade 6/7)
- MCA is compulsory exam requiring a minimum grade of 75%
- Manipulatives **are** permitted and will be provided
- Calculators **are not** permitted



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What does it mean to *reason*  
mathematically???

It took Jonathan and 3 of his friends, three hours to paint a fence. How long would it take to paint the same fence if two more friends were there?

# Things to Remember...

1. Read the question carefully and determine what is **explicitly stated** and what is **implied**.
2. **Identify the mathematics concepts** and **skills** you will be relying on to help you apply your understanding to a mathematical situation.
3. Reflect on **strategies** and **tools** you are going to use to help you find a solution.
4. Use **models** and **pictures** to show your thinking.
5. Reflect on your answer to ensure it is reasonable.



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*An Example...*



In the morning, there were a number of people at the pool. Later in the afternoon,  $\frac{2}{7}$  of the people left leaving 30 people left at the pool. How many people were at the pool in the morning?

- Explicitly Stated:

- $\frac{2}{7}$  of the people left
- 30 people were left

- Implied

- $\frac{5}{7}$  of the people remain at the pool
- $\frac{5}{7}$  of the people that were there in the morning represents the 30 people that remain

Read the question carefully and determine what is ***explicitly stated*** and what is ***implied***.

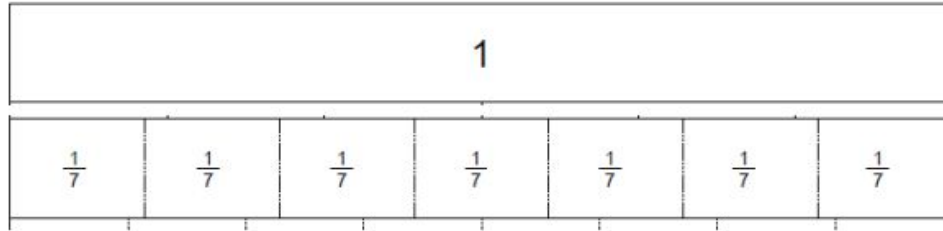
In the morning, there were a number of people at the pool. Later in the afternoon,  $\frac{2}{7}$  of the people left leaving 30 people left at the pool. How many people were at the pool in the morning?

- Fractions
- Determine the whole given a fractional part

***Identify the mathematics concepts*** and ***skills*** you will be relying on to help you apply your understanding to a mathematical situation.

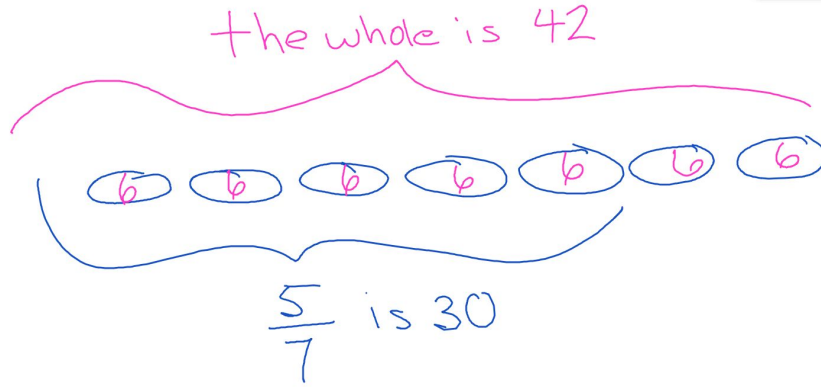
In the morning, there were a number of people at the pool. Later in the afternoon,  $\frac{2}{7}$  of the people left leaving 30 people left at the pool. How many people were at the pool in the morning?

- Fraction strips could be used to find the whole



Reflect on **strategies** and **tools** you are going to use to help you find a solution.

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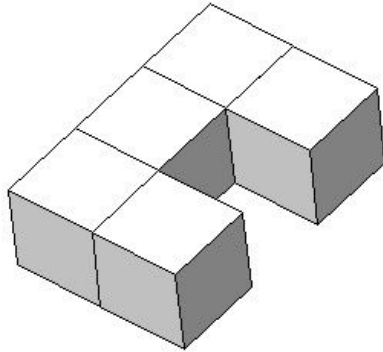
Use *models* and *pictures* to show your thinking.

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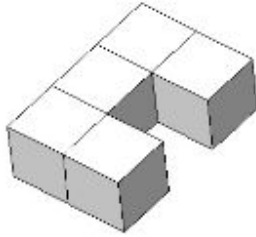
Reflect on your answer to ensure it is reasonable.

There is a difference between  
knowing something and  
understanding something!

The surface area of the figure is  $550 \text{ cm}^2$ . What is the volume of the figure?



The surface area of the figure is  $550 \text{ cm}^2$ . What is the volume of the figure?



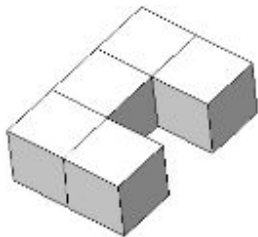
I may **know**...

- $SA = 2wh + 2lw + 2lh$
- $V = l \times w \times h$

What do I **understand** about surface area and volume???



The surface area of the figure is  $550 \text{ cm}^2$ . What is the volume of the figure?



Using what I *understand* about surface area and volume...

*A few logistical items...*



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# Math Competency Assessment

Saturday, September 7, 2024

10:00 AM - 12:00 PM

Simcoe Hall, University Avenue



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## If the MCA isn't written...

- Missing the initial sitting of the Math Competency Assessment is deemed the first attempt of your four total attempts.
- The next opportunity is in March, **Sunday March 16<sup>th</sup>, 2025.**



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## If the MCA isn't passed...

- Students who are not successful in September can retake the assessment **Sunday March 16<sup>th</sup>, 2025.**
- Year 1 students who are unsuccessful in their 1<sup>st</sup> attempt in September, must be registered in **EDUC 3519: Mathematics Curriculum for P/J Teaching** immediately following the release of the exam results, in order to be permitted to re-write in March 2025.



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# Math Competency Assessment

*An opportunity for you to make your thinking about mathematics concepts and skills visible as part of your learning journey.*



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THANK YOU



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