## Thinking Feet Advanced Math L2 + Competition Math L1

Fall Semester 2022 - Thursday 5:30PM *Estimated Plan, there may be some deviations

|  | Class | Domain | Details |
| :---: | :---: | :---: | :---: |
|  | 1 | Problem Solving Strategies (draw it out, make a table, create an organized list, more) Math Olympiad Introduction | Students learn fundamentals of problem solving strategies. Students get exposure to Competition Problems so they have an idea of the journey ahead |
| $\bigcirc$ | 2 | Problem Solving Strategies (draw it out, make a table, create an organized list, more) Math Olympiad Introduction | Students learn fundamentals of problem solving strategies. Students get exposure to Competition Problems so they have an idea of the journey ahead |
|  | 3 | Problem Solving Strategies (draw it out, make a table, create an organized list, more) Math Olympiad Introduction | Students learn fundamentals of problem solving strategies. Students get exposure to Competition Problems so they have an idea of the journey ahead |
|  | 4 | Patterns with Figures | Patterns are a very important concept that show up in many areas. Students will learn pattern identification using shapes and figures. |
|  | 5 | Patterns with Figures | Students will learn pattern identification using shapes and figures. |
|  | 6 | Faster Arithmetic - Additions, Subtractions | Tricks and strategies to increase speed of arithmetic operations |
| - | 7 | Patterns with Numbers | Students will learn pattern identification using numbers. |
|  | 8 | Patterns with Numbers | Students will learn pattern identification using numbers. |
|  | 9 | Faster Arithmetic - Multiplication, Division | Tricks and strategies to increase speed of arithmetic operations |
|  | $10$ | Geometry - structured counting | Strategies for counting number of triangles, rectangles etc in complex shapes |
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|  | 12 | Challenging arithmetic problems to figure out unknown digits in an arithmetic operation - addition and subtraction | E.g 8A5+B79 = C23D. Find A, B, C, D |
|  | 13 | Challenging arithmetic problems to figure out unknown digits in an arithmetic operation - addition and subtraction |  |
|  | 14 | Magic Squares \& Triangles | Identifying number elements inside Magic Squares and Triangles |
|  | 15 | Magic Squares \& Triangles |  |
|  | 16 | Challenging arithmetic problems to figure out unknown digits in an arithmetic operation - multiplication and division | E.g. $73 \mathrm{~A} \times \mathrm{A} 3=389 \mathrm{AA}$, Find A |
|  | 17 | Challenging arithmetic problems to figure out unknown digits in an arithmetic operation - multiplication and division |  |
|  | 18 | Geometry - Creative Perimeter Calculations | Calculating Perimeters of Complex Shapes using efficient strategies |
|  | 19 | Geometry - Creative Perimeter Calculations |  |
|  | 20 | Geometry - Creative Perimeter Calculations |  |
|  | 21 | Problems with Calendars and Dates |  |
|  |  | Problems with Calendars and Dates |  |
|  | 23 | Problems and Strategies on 'Averages' | Understand the concepts of simple and weighted averages and applications in problems |

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| :---: | :---: | :---: | :---: |
| $\times \div$ | 24 | Problems and Strategies on 'Averages' |  |
| $\bigcirc$ | 25 | Creative Strategies for Arithmetic Word Problems - 1 | Strategies to solve problems where information is not presented in a straightforward fashion |
|  | 26 | Creative Strategies for Arithmetic Word Problems - 1 | Strategies to solve problems where information is not presented in a straightforward fashion |
|  | 27 | Creative Strategies for Arithmetic Word Problems - 2 | Speed and Distance |
|  | 28 | Creative Strategies for Arithmetic Word Problems - 2 | Speed and Distance |
|  | 29 | Working Backwards - 1 | A strategy to solve problems where things happen in sequence |
|  | 30 | Working Backwards - 2 | A strategy to solve problems where things happen in sequence |
|  | 31 | Ratios and Fractions |  |
|  | 32 | Ratios and Fractions |  |
| $\cdots$ | 33 | Ratios and Fractions |  |
|  | 34 | Problems and Strategies using Division Remainders | Remainders in division a very useful concept applicable in many scenarios especially higher level number theory (later known as modular arithmetic) |
|  | $35$ | Creative Strategies for Arithmetic Word Problems - 3 |  |
| 1 | $36$ | Creative Strategies for Arithmetic Word Problems - 3 |  |

