| App Title | Cost | Content Focus | Grade Level Sug | Notes about use |
| :---: | :---: | :---: | :---: | :---: |
| Arithmaroo1 | \$0.99 | composing and decomposing numbers, Recognizing groups without counting | K-2 | Shows various number arrangements and user responds with total. App rewards for speed- I try to de-emphasize speed and emphasize trying to find out how many without counting. New levels are unlocked with proficiency, user cannot go back to previous levels. Similar to MathGirls Numb |
| Deep Sea Duel (Illuminations) | free | flexible thinking about operations | Gr. 3-8 | Hit a target sum (using multiple addends). Includes option for negative and/or rational numbers. |
| Desmos | free | graphing, functional relationships, etc. | Gr. 6+ | Every middle school teacher should be aware of Desmos -- even better at desmos.com! |
| Door24 | free | flexible thinking about operations | Gr. 3-7 | Like the game "24." Includes levels with parentheses to support middle grade work around order of operations |
| Estimate Fractions (MathTappers) | free | fractions on a number line | Gr. 3-6 | The hard level gets fairly challenging! Estimate fractions on a number line using benchmarks, including improper fractions. Also: addition \& subtraction |
| Find Sums (MathTappers) | free | composing + decomposing numbers | Gr. 1-2 | Students add pairs of numbers to hit a target sum. User chooses which visual model (ten frame, hundreds grid, part/whole box) to use. Supports instruction, not just practice. |
| Hungry Fish (Motion Math) | \$1.99/\$5.99 | composing + decomposing numbers | K-2+ | Students compose numbers (add and subtract) to hit target numbers and feed the hungry fish. Even works for addition and subtraction of integers (gr. 6) |
| Learning Center: Geoboard | free | manipulative - geoboard | Gr. 1-5 | Interactive manipulative: geoboard |
| Learning Center: Number Frames | free | manipulative - ten frames | K-2 | Interactive manipulative: ten frames |
| Learning Center: Number Pieces | free | manipulative - base 10 blocks | Gr. 1-5 | Interactive manipulative: base-10 blocks |
| Learning Center: Number Rack | free | manipulative - rekenrek | K-2 | Interactive manipulative: rekenrek |
| Learning Center: Pattern Shapes | free | manipulative - pattern blocks | K-5 | Interactive manipulative: pattern blocks |
| LobsterDiver HD (MathSnacks) | free | fractions on a number line | Gr. 4-6 | Just FYI: levels are in a set order, and a student starting over must complete all levels again from the beginning. |
| Math Girl Number Garden | \$0.99 | composing and decomposing numbers, Recognizing groups without counting | Gr. K-2 | Shows various number arrangements and user responds with total. App rewards for speed- I try to de-emphasize speed and emphasize trying to find out how many without counting. New levels are unlocked with proficiency, user can go back to previous levels. |
| Math Snacks | free | ratios, proportions, scale, fractions | Gr. 6-8 | Animated videos about core middle school topics, with a focus on ratios. Student favorites include Bad Date, Atlantean Dodgeball, and Scale Ella. Includes transcript and teacher/student guides. |
| Motion Math Fractions | \$1.99/\$3.99 | fractions (focus on number line) | Gr. 3-6 | Most levels focus on the number line; a few sort by benchmarks |
| Motion Math Zoom | \$2.99/\$5.99 | number lines | K-6 | K-3: Reasoning about quantity and place value using a number line; 4-6: Decimal place value! Animates the "zooming" concept ThinkMath uses |
| Motion Math: Match | \$3.99 | fluency with $+,-, \mathrm{x}, \div$ | Gr. 1-5 | One of the more engaging games for math fact practice; requires students to think flexibly about equivalence and occasionally combine quantities |
| Multiples (MathTappers) | free | multiplication and division | Gr. 3-5 | Uses visual models (arrays and bar model) to support conceptual instruction about multiplication, while allowing for fluency practice |
| Number Line (MathTappers) | free | estimating on a number line | Gr. 1-4 | Estimate quantities on a number line to develop a sense of quantity |
| Pick-a-Path (Illuminations) | free | flexible thinking about operations | Gr. 3-7 | Various mazes include integers, fractions decimals, exponents, and more. |
| Questimate! (Motion Math) | free/\$5.99 | estimation and reasoning about quantity | Gr. 3+ | Amazing game for developing curiosity and a sense of quantity! |
| Ratio Rumble (MathSnacks) | free | ratios | Gr. 6-8 | Works best with a teacher or tutor to push thinking |
| SolveMe Mobiles (EDC) | free | algebraic thinking/mobile puzzles | Gr. 3-8 | from EDC! Many levels, and students can create their own accounts to track progress. I love the writing tool to show thinking. Some levels very challenging. |
| Thinking Blocks | free | word problems, bar models, multiplication and division | Gr. 3-5 | Models how to use the bar model for multiplication and division across many contexts! (The website deals with other operations, as well.) |
| Wings (Motion Math) | free/\$5.99 | multiplication | Gr. 2-5 | Levels build on representations, getting increasingly more abstract (from groups to arrays to partial arrays to numbers, etc.) |

